TO

THOMAS YOUNG, M.D.

PROFESSOR OF MIDWIFERY

IN THE UNIVERSITY OF EDINBURGH,

WHOSE GREAT SUCCESS,

BOTH AS A TEACHER AND PRACTITIONER,

IS THE FULLEST TESTIMONY

OF THE DISCERNMENT OF THE WORLD,

AND OF HIS OWN EXTENSIVE ABILITIES;

THIS TREATISE IS

RESPECTFULLY INSCRIBED,

BY HIS MUCH OBLIGED

AND MOST HUMBLE SERVANT,

ALEXANDER HAMILTON.

TO

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WHOSE ORIGINAL STUDIES,

BOTH AS A TEACHER AND PRACTITIONER,

IN THE DELICATE TESTIMONY

OF THE SENSORIUMENT OF THE WORLD,

AND OF HIS OWN EXTENSIVE ABILITIES;

THIS TREATISE IS

RESPECTFULLY INSCRIBED,

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AND MOST HUMBLE SERVANT,

ALEXANDER HAMILTON.

A TREATISE OF MIDWIFERY,

COMPREHENDING THE

MANAGEMENT OF FEMALE COMPLAINTS,

AND THE

TREATMENT OF CHILDREN IN EARLY INFANCY.

TO WHICH ARE ADDED

PRESCRIPTIONS FOR WOMEN AND CHILDREN,

AND

DIRECTIONS FOR PREPARING A VARIETY OF FOOD AND DRINKS, ADAPTED TO THE CIRCUMSTANCES OF LYING-IN WOMEN.

DIVESTED OF TECHNICAL TERMS AND ABSTRUSE THEORIES.

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PREFACE.

AFTER a period of 2000 years, during which phyſicians have continued, with very little interruption, to tranſmit their obſervations to poſterity, it may ſeem ſtrange that any branch of medicine ſhould ſtill remain in uncertainty. Nature is, however, intricate in her operations, and practitioners have not been always qualified for inveſtigating thoſe circumſtances which ſhe has choſen to conceal.

MIDWIFERY has participated all the diſadvantages which have contributed to retard the progreſs of medicine, and has alſo been ſubject to ſome peculiar misfortunes. For many ages it was entirely confined to women, who were either ignorant or inattentive.

The elegant and voluptuous *Cleopatra*, who ſtudied Nature, with a view to diſco-

ver new ſources of pleaſure, and even to avoid the pains of death, is reported to have paid conſiderable attention to this art; but it is eaſy to perceive that her knowledge muſt have been confined to the effects of particular remedies. There is ſtill extant a book under her name, though its intrinſic merit affords little reaſon to believe that it is the genuine production of the Queen of Egypt. It treats of the diſeaſes of women, and is a very trifling and inſignificant performance. As this matter is uncertain, it would be unfair to argue, from the ignorance of a woman in the higheſt ſtation, of a learned and polite nation, that knowledge of this kind could neither be great nor extenſive.

We have a better reaſon to prove that the confinement of midwifery to the hands of women was formerly injurious to the art and to the public; for the principal legiſlators of Athens, the firſt city in Greece, prohibited women and ſlaves from practiſing any branch of phyſic.

This

This prohibition, however, related only to thoſe who were not properly inſtructed in the art; for, when an Athenian woman, impelled by curioſity, or, perhaps, by the more laudable deſire of reſcuing her ſex from the ignominy they had ſo long ſuffered, had ſtudied under Herophilus, the law was repealed by the influence of the Athenian matrons.

In conſequence of this attention of the legiſlators to the terrors of the matrons, it is probable that women were more frequently employed, and more fully inſtructed in the principles and practice of the art; but, except from ſome fragments of the works of Aſpaſia, quoted by medical authors, we find little reaſon to ſuppoſe that the Grecian midwives excelled in this art.

It would, perhaps, in thoſe times, been an uſeleſs labour to have expoſtulated with the female ſufferers in this complicated inattention to themſelves, their huſbands, and their helpleſs offſpring; for their timidity

and

and delicacy, which is often the diſtinguiſhed ornament and defence of the ſofter ſex, would have ſuggeſted greater terrors than even that of pain, or of death, and when reaſon had been ſilenced, the *feelings* would prevail.

The refinements of faſhion, however, and the more unreſerved connection between the two ſexes, weakened this powerful obſtacle; ſo that the arguments derived from this amiable, but miſtaken modeſty, at laſt yielded to the love of life, the peculiar tenderneſs of the mother, and the affection of the wife; and male practitioners were employed to give that aſſiſtance for which their improved knowledge, their courage, preſence of mind, and, frequently, their bodily ſtrength, had particularly qualified them. It muſt, however, be allowed that they attributed too much to art, and ſeldom waited for thoſe exertions of Nature, by which, even in the moſt deſperate caſes, ſhe often accompliſhes her own work; but this diſtruſt

truſt of Nature rather proceeded from the imperfection of the art, than from the fault of the artiſt.

A more perfect ſtate of ſcience was neceſſary to ſhow what Nature could perform, as well as what ſhe could ſuffer, and to demonſtrate that her boaſted perfection is ſometimes fallacious.

We are now more fully informed of the ſeveral circumſtances which juſtify our interference, or lead us to an exact, patient attendance on the efforts of Nature, and the *art of Midwifery* may, at laſt, be ſaid to have acquired as great perfection as the limited ſtate of human attainments will permit.

In this country, as well as in ſome others, where refinement has had leſs effect, the practice of female aſſiſtants, though diminiſhed, is conſiderable; and, as ſcience is more generally diffuſed, the prejudices which delicacy firſt inſtilled, have gathered ſtrength from the increaſed knowledge and conſequent ſucceſs of the midwives.

I have practiſed this art in the metropolis of Scotland for twenty years, and have taught younger practitioners for more than twelve. In the inſtruction of women, however, I found numerous obſtacles. Verbal inſtructions were liable either to be miſunderſtood, or were ſoon effaced: Books were often confuſed and unintereſting in their details; abſtruſe, imperfect, and unintelligible in their principles. Even thoſe which were deſigned for women, are filled with technical terms, and ſpecious, though deluſive theories; and the later improvements, which are truly valuable, cannot, from the time of their publication, be contained in them. Attentive reading, and conſtant practice, have enabled the author to comprehend in this treatiſe the moſt important rules for delivery; to give the previous inſtruction in the moſt plain and familiar manner, diveſted of every term which cannot be fully and clearly explained, and to arrange the whole in the moſt natural order.

If,

If, therefore, aſſiſtance in child-bed be neceſſary, if that aſſiſtance cannot be properly furniſhed without inſtruction, or adminiſtered by a male practitioner but in the moſt neceſſitous caſes, without diſtreſſing the patient, the author's time has been employed for the valuable purpoſe of eaſing pain, and of removing anxiety.

It may not, perhaps, be preſumptuous to expreſs his hopes, that experienced practitioners may find ſome articles in this performance, though not entirely new, at leaſt ſtated in a light in which they have not been accuſtomed to view them. He ſhall, therefore, flatter himſelf, that, in this remote way, he may be more extenſively uſeful to the ſofter ſex; and that, notwithſtanding the extreme timidity and delicacy which influence the conduct of ladies in the choice of their female aſſiſtants, he may eaſe child-birth of ſome of its pangs, and diſarm it of its ſevereſt terrors. For his intentions, he can fully anſwer; the reſult of them

them is now ſubmitted to the judgment of the public.

If this tract ſhould fall into the hands of intelligent women, who have no connection with midwifery as a profeſſion, and who have fortitude enough to read the diſtreſſes to which their ſex may be liable, without any vain groundleſs apprehenſions, they will reflect, that a work of this kind would be incomplete, unleſs every poſſible accident had been explained; that the pregnant ſtate, however inconvenient, is generally free from other diſorders; and that labour, though painful, is almoſt always natural, and the event happy. They may learn, that female aſſiſtance is often inadequate to the end propoſed; and to be cautious to whom they entruſt their own lives, which are doubly valuable on account of the relation in which they ſtand to a worthy huſband and tender infants.

MIDWIFERY,

FOR THE USE OF

FEMALE PRACTITIONERS.

BY the term MIDWIFERY is underſtood, 'The art of aſſiſting women in the 'birth of children. It is ſuppoſed to com-'prehend alſo the management of women, 'both before and after delivery, as well as 'the treatment of the child in its moſt ear-'ly ſtate.' An accurate knowledge of that part of the body which is the ſubject of the midwife's operations, and a proper attention to thoſe things moſt nearly connected with it, are eſſentially neceſſary to all who devote themſelves to the ſtudy of midwifery.

The human body, by anatomiſts, has been, generally, divided into the head, trunk, and extremities. The head contains the brain, which is continued downwards to the extremity of the *ſacrum*, or rump, forming what is called the Spinal Marrow; very different, however, from the oily fatty ſubſtance, commonly called Marrow.

From the ſubſtance of the brain, and its continuation, the marrow, ariſe all the nerves of the body.

The nerves are divided and diſperſed through the moſt minute parts of the body, and, by their means, we ſee, hear, taſte, ſmell, and feel. Some parts, however, have a larger ſhare of this peculiar ſubſtance, and, conſequently, are more readily affected by any cauſe of diſeaſe; as the ſtomach, in both ſexes, and the womb in women. Many parts alſo, which poſſeſs a large proportion of nerves, ſympathiſe with ſome other parts that are affected, when thoſe other parts are diſordered, as the head and ſtomach;

ſtomach; the ſtomach and womb; the womb and the breaſts.

The trunk is divided into the *thorax* or cheſt, and the *abdomen* or belly.

The cheſt reaches from the neck to the loweſt ribs.

In the cheſt are contained the principal organs eſſential to life, hence called vital, ſuch as the heart and great blood-veſſels, the lungs, &c.

The heart receives the blood from the lungs, where it circulates completely before it becomes fit for the purpoſes of life. From the heart the blood is propelled into the *aorta* or great artery; from thence it is conveyed, by other branches of arteries, and diſtributed through the whole ſyſtem. The blood is returned again to the heart by a ſet of veſſels, called *Veins*. The whole blood is carried to the right ſide, or auricle of the heart, by a great vein, called *Vena Cava*; from the right auricle, it gets into what is called the Ventricle or belly of the heart; from which it is conveyed by an artery,

artery, called Pulmonary, to the lungs. The blood circulates through the lungs, where it is expoſed to the air inſpired by breathing; having circulated completely through the lungs, it is taken up by a vein, called Pulmonary, carried to the left ſide of the heart, through the left auricle and ventricle, from which getting into the *aorta*, it circulates through the whole body. The lungs are of a ſpungy texture, conſiſting of blood-veſſels and air-veſſels, and the extremities of the air-veſſels are ſwelled into very ſmall bulbs or globules, which, with the veſſels, form the ſubſtance of the lungs, and are capable of expanding and contracting. The health of the body depends much on a free circulation through the lungs. The blood cannot circulate freely there, unleſs the lungs be fully inflated with air. Confined air, and want of exerciſe, favour a contracted ſtate in the lungs, and thus interrupt the circulation through them, and diminiſh the quantity of that perſpiration,

perſpiration, or fine vapour, which is conſtantly thrown out by the breath in expiration, the evacuation of which is very eſſential to health. The perſpiration by the lungs, and by the pores in the ſurface of the body, is ſuppoſed, in point of quantity, to be nearly equal to all the other evacuations. The interruption in the circulation through the lungs, and the diminution or obſtruction of perſpiration, occaſioned from cold, irregularities, and other cauſes, prove the ſource of the moſt fatal diſeaſes, as cough, aſthma, ſpitting of blood, conſumption, &c.

The *Abdomen*, or belly, is ſubdivided into the upper and lower belly. The lower belly is called the *Pelvis*, or baſin. In the cavity of the belly are contained, the ſtomach and inteſtines, liver, ſpleen, and particularly thoſe organs deſigned for digeſting and preparing the nouriſhment.

The ſtomach is the great receptacle of the food, and the inteſtines may be conſidered as its continuation, ſince the canal is

continued, without any ſtoppage or interruption, from the upper part of the throat to the fundament. The inteſtines are, however, divided into ſix portions, called, 1ſt, *Duodenum*; 2dly, *Jejunum*; 3dly, *Ilium*; 4thly, *Caecum*; 5thly, *Colon*; and, 6thly, *Rectum*, or Strait Gut. The three firſt of theſe are ſmall guts; the three latter, great guts.

The ſtomach prepares and digeſts the food, after which it gets into the alimentary tube, or ſmall guts. The digeſted maſs is further changed by the aſſiſtance of the bile, or gall, an acrid ſtimulating fluid contained in the gall-bladder, and the fluid from the *pancreas*, or ſweet-bread. The bile is ſecreted from the liver; and the gall-bladder is placed in ſuch a manner, that the more the ſtomach is diſtended with food, a greater quantity of bile is ſent into the ſmall guts.

The nutritive part of the aliment, thus prepared and digeſted, forms a white, milky fluid, called Chyle, which is taken up by

a great number of veſſels, opening into the guts called Lacteals, and conveyed by them into the blood. In this manner a ſupply is furniſhed proportioned to the waſte, continually going on by the action of the body, and the common diſcharges.

The lower part of the belly is called the *Pelvis*. The female *Pelvis* is an irregular cavity, ſurrounded with bone, and covered with ſoft parts. It is ſituated in ſuch a manner, that it connects the upper and lower parts of the body, and makes the common center of its motions. In this cavity are contained, part of the inteſtines, the bladder of urine, the organs of generation, the nerves and blood-veſſels of theſe parts, and of the lower extremities, &c.

The *Pelvis* beſide many other uſes, ſerves to defend thoſe parts from external injuries; to ſupport the womb, while it is augmented by pregnancy; and to give paſſage to the child at birth.

To have an accurate knowledge of the pelvis, it is eſſentially neceſſary to conſider the

the different parts of which it conſiſts, firſt ſeparately, and then in their united ſtate.

The *Pelvis* of a child-bearing woman conſiſts of ſeven different pieces of bone, viz. two large bones, called *Oſſa Innominata*, which form the ſides and fore part, and the *Os Sacrum*, or ſacred bone, with its extremity called *Coccyx*, or *Os Coccygis*, compoſed of four ſmall moveable pieces at the back part.

In children and young girls, each *Os Innominatum* is ſeparated into three diſtinct portions of bone, and the names are ſtill retained in the adult ſtate.

The *Os Innominatum* is therefore divided into

The *Os Ilium*,
Iſchium,
and
Pubis of each ſide.

Thus,

Thus, the whole *Pelvis* is compoſed of the

Os Ilium	or	Haunch-bone	at the ſides.
Iſchium		Seat-bone, Huckle-bone, Hip-bone	
Pubis		Share-bone	— before.
Sacrum	or	Sacred-bone	behind.
Coccyx		Rump-bone	

The *Os Ilium*, or haunch-bone, is the ſuperior broad bone which makes the lower ſide of the belly and upper ſide of the pelvis. It is unequally convex or bumpy on the back part, as moſt of the bones of the pelvis are, and concave or hollow before. It reaches downwards a little below the ſharp ridge on the internal ſurface of this bone, which makes the brim of the pelvis.

The *Os Iſchium*, or ſeat-bone, called by ſome the Hip-bone, or Huckle-bone, is the ſecond portion or diviſion of the *os innominatum*. It is continued from the *ilium* downwards, and makes the lower part of

the ſide of the pelvis. It is from the diſtance of the under part of each *os iſchium*, that we judge of a narrow pelvis at the bottom.

The *Os Pubis*, or ſhare-bone, is the ſmalleſt portion of the *Os Innominatum*, making the middle fore part of the pelvis. The upper part of this bone is the brim of the *Pelvis*. The joining at the fore part is called the *Symphyſis of the Pubes*, and the curved opening below is called the *Arch of the Pubes*.

The *Os Sacrum*, or ſacred bone, at the back part of the *Pelvis*, is of the ſhape of a triangle, having three ſides. The broadeſt ſide is uppermoſt, from which it gradually turns narrower, till it terminates in its extremity the *Coccyx*. The *Os Sacrum* is conſiderably bent inwards and forwards, is irregular and bumpy on the outſide, ſmooth and hollowed within. Though it hath the appearance of joints like the backbone and loins, it is one complete ſolid piece of bone.

The

The *Coccyx*, *Os Coccygis*, or rump-bone, is a ſmall triangular chain of bones, which are connected with the *Os Sacrum* above, and gradually become narrower, till they end in a ſmall point. It generally conſiſts of four pieces of bone, with cartilages or griſtles between them. The firſt of theſe portions, from its manner of connection with the *Sacrum*, is endowed with a conſiderable degree of motion, and all the bones have a free play on each other: The motion of the whole is ſo great, that it makes the difference of nearly an inch at the bottom of the *Pelvis*, from before backwards, when it is ſtretched out, by the preſſure of the child's head, in time of labour.

The *oſſa innominata* are joined behind to the *os ſacrum*, by thick cartilages and ſtrong ligamentous cords. The bones are indented, as it were, into each other, which further ſtrengthens the articulation. This connection, at the back part of the *pelvis*, is called the *ſacro-iliac-ſymphyſis*.

The

The *ossa innominata* are joined at the *pubes* before by a thick, double, cartilage, which is securely strengthened by a very strong ligamentous covering.

The connecting cartilages of the bones of the *pubes*, are softer in younger years, and will cut like a gristle; but, in advanced life, they gradually harden, and become more solid.

None of these articulations, however, are capable of motion in time of labour, much less of actual separation, or disunion, unless the bones, or their connecting parts, be diseased.

The *pelvis* is connected, above, with the *vertebrae*, or joints of the loins, which project in such a manner as to intrude over the upper opening of the pelvis. The point of contact of these *vertebrae* with the *sacrum*, is called the great angle of the *sacrum*.

The *pelvis* is connected, below, with the thigh bones,

Having

Having finiſhed the deſcription of the parts of the pelvis ſeparately, we proceed to conſider it in its united ſtate.

Shape and dimenſions of the baſin.

The pelvis is divided into ſuperior or larger, and inferior or leſſer baſin. The firſt of theſe is part of the belly; the latter only ought to be conſidered, and called the *true pelvis*. It reaches from the ridge made by the upper parts of the *ſacrum* and *pubes*, and inferior projections of the *oſſa ilia*, to the loweſt parts of all theſe bones. This ridge, which thus divides the baſon into two parts, is called the *brim of the pelvis*, a term frequently uſed in the art of midwifery.

Three parts of the baſin merit the particular attention of practitioners in midwifery.

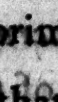
1*ſt*, The ſuperior opening, called the *brim*.

2*dly*, The inferior opening, termed the *bottom*, and,

3*dly*,

3*dly*, The incloſed ſpace, ſtiled the *cavity*, or capacity.

1*ſt*, At the *brim*, the female baſin hath more the appearance of an oval, than of a triangle, or circle, to which it has, by ſome, been reſembled.

It hath ſomething of a ſimilar appearance at the *bottom*; but the two ovals, at the *brim* and *bottom*, are placed in oppoſite directions, as if they croſſed each other, thus ; the brim is of this figure  ; the bottom of that . This will be beſt underſtood by meaſuring the dimenſions of the different diameters, or diſtance of the different ſides at the *brim* and *bottom*.

At the *brim*, a well proportioned pelvis ought to meaſure nearly an inch more from ſide to ſide, than from *pubes* to *ſacrum*. On the contrary, at the *bottom*, it ſhould meaſure, nearly an inch more from fore to back part, making an allowance for the ſtretching of the *coccyx*, than from the extremity of the one *os iſchium* to the other.

Thus,

Thus, at the *brim*, the greateſt diameter, or length of the *pelvis*, is from ſide to ſide, that is, from the inferior part of one *os iſchium* to the other, where it ſhould meaſure nearly five inches, or five and one fourth in the ſkeleton. The ſmalleſt diameter is from fore to back part, that is, from the upper part of the *pubes* to that of the *ſacrum*, where it ought to meaſure a full inch leſs than the diſtance from ſide to ſide.

At the bottom, theſe proportions are nearly reverſed; for a well ſhaped *pelvis* ſhould meaſure about five inches, or five one fourth in the ſkeleton, from the inferior edge of the *ſymphyſis* of the pubes to the extremity of the *ſacrum*, or *coccyx*, when ſtretched out; and four inches, or four and one fourth only, from the under parts of the oppoſite *oſſa iſchia*.

3. The *capacity* of the pelvis varies with regard to depth in different parts.

At the back-part, from the upper part of the *ſacrum* to the point of the *coccyx* when ſtretched out, it is nearly three times deeper

deeper than at the ſides; and twice as deep at the ſides as it is before. For it ought to meaſure nearly ſix inches behind, four at the ſides, and two only at the *pubes*. Thus, it is of great conſequence to remember, that the *pelvis* is ſhalloweſt at the *pubes*, and deepeſt at the *ſacrum*.

The particular ſhape of the *capacity* ought alſo to be attended to. All the bones are more or leſs hollowed in their internal ſurface, to enlarge the ſpace included within them; they ſlope outwards, both above and below, for the ſame important purpoſe: Thus, at the upper part, behind, the *vertebrae*, or joints of the loins, fall backward, making the figure of an arch with the *ſacrum*; the *oſſa ilia* at the upper ſides ſpread outwards, forming the haunches; at the under ſides the *iſchia* alſo ſpread out; the *ſacrum* poſteriorly inclines backwards; the *coccyx*, by its motion, recedes, and all the ligaments and ſoft parts which cover and fill up the empty ſpaces in the living body, yield to the preſſure of the child's head in

time

time of labour, making a concavity, or hollow, in theſe parts, nearly equal to the hollow of the *ſacrum*.

If a pregnant woman, near her term of delivery, be placed in a poſture ſomething between ſitting and lying, the brim of the *pelvis* will be nearly horizontal; and an imaginary line droped from a little above the navel would paſs through its middle, making its center. In introducing the hand into the womb, and placing the woman in a poſture for delivery, this line of direction ſhould be attended to.

A pelvis of the ſhape, figure, and dimenſions now deſcribed, is called *ſtandard*. But, if it is deficient in any of theſe proportions, it is ſaid to be narrow, or faulty.

Diſtorted, or Narrow Pelvis.

The bones of the *pelvis*, like others, are liable to diſeaſe. They are ſubject to injury from external cauſes, ſuch as bruiſes, fractures, &c.

But the common cauſe of diſtortion is internal diſeaſe. From rickets, or a ſcrophulous taint, in infancy chiefly, ſometimes in grown up years from tedious lingering diſeaſe, as rheumatiſm, ſlow fevers, and the like, the conſtitution is impaired, the blood and other fluids are empoveriſhed or vitiated. From theſe cauſes the bones, loſing their uſual hardneſs and ſolidity, become ſoft like a griſtle, and, by preſſure, bend and grow crooked in various directions. In this ſtate, by the weight of the incumbent body, the joints of the loins are puſhed forwards towards the *pubes*, or bent in towards a ſide, intruding more or leſs over the brim of the *pelvis*, and in ſome inſtances almoſt totally deſtroying the opening at the brim, or giving the appearance of a figure of 8, dividing the cavity into two parts.

This ſpecies of deformity, by the projection of the joints of the loins over the *ſacrum* towards the *pubes*, occurs more frequently than any other. If it ſhould only happen

happen in a ſlight degree, and the woman is otherwiſe well proportioned, it is with difficulty diſcovered till ſhe has been a conſiderable time in labour.

While the bones are in a ſtate of diſeaſed ſoftneſs, the *oſſa ilia*, by the poſture of lying, are alſo bent in, and ſometimes approach each other ſo nearly, that, on touching, two fingers can with difficulty be admitted between them.

The *ſacrum* is frequently puſhed to one ſide, or looſes its hollow and becomes bumpy. The *coccyx* is likewiſe preſſed to a ſide, or bent forwards towards the middle of the *pelvis*.

The bones of the *pubes* alſo ſuffer from the ſame cauſes; the *arch* of the *pubes* is often deſtroyed; ſo that, inſtead of the natural ſpace, the limbs of the *pubes* ſeem almoſt to cloſe on each other, and refuſe admittance to a finger between them.

Though practitioners will be often at a loſs to diſcover the deformity for ſome time, when confined to the *brim*, there is little

little difficulty in readily perceiving it when the diſtortion affects the *bottom*.

To an attentive obſerver, there is a ſtriking difference, in the touch, between the natural, healthy, and a diſeaſed or faulty ſtate of theſe parts. If, inſtead of the concavity or hollow of the *ſacrum*, it feels to the touch convex, or bumpy; if the under parts of the *iſchia* approach each other, and interrupt the paſſage of a finger or two within them; if the *arch of the pubes* varies in its figure from the ordinary ſtate, ſo that two fingers cannot be placed flat under the *ſymphyſis*, we may be certain that the *pelvis* is narrow and diſtorted, that the labour will be painful and dangerous; and ſhould therefore have early recourſe to proper aſſiſtance.

Beſide a knowledge of the *pelvis*, both ſeparately and in its united ſtate, the ſtructure and figure of the child's head, and its manner of paſſing through the *pelvis*, are important objects of conſideration.

Structure

Structure and Figure of the Child's Head.

The head of the child is compoſed of ſeveral pieces of bone, and may be divided into the *cranium* or ſkull, and face. At birth, the bones of the ſkull are moveable, being connected to each other by means of membranous ſpaces, called ſutures, which allow the bones a conſiderable play on each other. The bones of the ſkull are alſo ſmooth and uniform, in compariſon of thoſe of the face, which are not only rough and unequal, but immoveable.

1. The *cranium*, or ſkull, is compoſed of ſix pieces of bone, viz.

The *os frontis*, or bone of the fore-head.

The *os occipitis*, *occiput*, or bone of the hind-head; and

The *oſſa parietalia*, or parietal bones, and the *oſſa temporum*, or temple bones; at the ſides of the head.

Theſe bones are connected to each other by

The

The *coronal ſuture* before, which runs in a direction from ear to ear, and joins the bone of the fore-head with the parietal bones;

The *lamdoidal ſuture* behind, which joins the parietal bones with the *occiput* or hind-head; and

The *ſagittal ſuture*, which runs lengthwiſe between the former two, connecting the parietal bones, at the ſides of the head, to each other. This ſuture is alſo continued forwards through the middle of the bone of the fore-head.

At the upper back part of the fore-head, where the two ſutures, viz. the *coronal* and *ſagittal*, croſs each other, is an open membranous ſpace, where the bone is wanting. This is of different ſizes in different children, and is called the *Fontanella*, or open of the head.

At the hind-head, where the *lambdoidal* croſſes the end of the *ſagittal ſuture*, is a ſmall open point, called the *vertex*. It is this part which firſt preſents at the center

of

of the *pelvis*, and continues to be the preſenting part in a natural labour.

2. The child's head is of an oval figure, whether we view its ſuperior part, called the *cranium* or ſkull, or the fore-part, called the face. It may be ſaid to be compoſed of two ovals; the ſmooth moveable *cranium*, and the rough immoveable face.

The oval of the face is, like the *cranium*, made up of ſeveral pieces of bone; but they are firmly connected to each other, and conſequently do not yield, like the bones of the ſkull, in time of labour.

The head of the child, like the *pelvis* of the mother, has different diameters.

It commonly meaſures about an inch more, from fore-head to hind-head, than at the ſides.

It meaſures about half an inch more from the chin to the top of the fore-head, than from the fore-head to the hind-head.

The greateſt length of the head is from the chin to the *vertex*. When the head is lengthened out, from the preſſure it ſuffers

in

in paſſing through the *pelvis*, this will amount to ſix or ſeven inches, that is, above an inch or two extraordinary. In ſtrictly laborious births, the head will conſiderably exceed the length now mentioned.

The breadth of the child's body from ſhoulder to ſhoulder, meaſures commonly from five to ſomething more than ſix inches; the diameter of the breech is nearly equal. But, from the conſtruction of the articulation at the ſhoulders, and the ſeparation of the bones of the *oſſa innominata*, both are capable of having their bulk conſiderably diminiſhed by preſſure. For children are often brought into the world, the circumference of whoſe bodies at the ſhoulders and breech greatly exceeds that of the cavity (of the *pelvis*) through which they paſſed.

GENE-

GENERAL REMARKS.

From comparing the figure and ſize of the baſon with the bulk of the child's head, we ſhall eaſily ſee how the latter will moſt eaſily paſs through the former: But, as the bulk and diameter of the one is not always exactly ſuited to the other, and as the bones of the head are more ſolid and cloſely connected in one inſtance than another, difficulties in the birth will, from time to time, happen.

II.

Hence the advantage of the admirable make and conſtruction of the child's head at the ſmooth moveable *cranium*; for, if it were one firm ſolid body, whoſe bulk, at any time, exceeded the ſpace included within the bony ridge of the *pelvis*, delivery could not be performed without extraordinary aſſiſtance, and the conſequences would generally be fatal, either to the mother or child.

III.

It is alſo evident that an alteration of the figure of the child's head, and diminution of its bulk, from the over-lapping of the bones of the ſkull, anſwer a much better purpoſe than a ſeparation of thoſe of the mother's *pelvis*, which would be attended with many inconveniencies.

IV.

In natural labours, the progreſs of the head through the *pelvis*, for the moſt part, is as follows. The *vertex* firſt preſents at the *brim*, the fore-head towards one ſide of the *pelvis*, the hind-head to the other, or nearly ſo, and the ears towards the *pubes* and *ſacrum*. It would continue to paſs on, in the ſame direction, till birth, if the *pelvis* were of equal width in all its parts. But, as the wideſt part of the bottom of the baſon is in a different direction from the brim, the head, in its progreſs, ſtops for ſome time where the *pelvis* becomes narrow; it then gradually makes a turn, the face gets into the hollow

of

of the *ſacrum*; the hind-head riſes from under the *pubes*, where the *pelvis* is ſhallow; the *coccyx* alſo bends backwards. Thus the large oval of the head is again applied to the large diameter of the *pelvis*, and the head getting into the *vagina*, advances in a curved line of direction, and is at laſt protruded. The ſhoulders and breech follow the ſame direction with the head, accommodating themſelves to the ſhape and different diameters of the *pelvis*, or, by the preſſure they ſuffer in paſſing, have their bulk ſufficiently diminiſhed.

V.

Hence appears the neceſſity of remembering the figure, conſtruction, and diameters of the *pelvis* and child's head. To female practitioners, this knowledge is of the utmoſt importance. It points out the proper manner of turning the child, when the feet are delivered before the head; and thus prevents, in many caſes, the life of the child, and, in ſome inſtances, that of the mother, from

from falling a victim to the midwife's ignorance. For, in preternatural labours, if the natural turns ſhould be neglected, the midwife may pull till the body of the child be torn from the head, or at leaſt, till the life of the child be deſtroyed, before delivery could be accompliſhed. A circumſtance which actually happens where the practitioner is ignorant of the principles of the art.

To acquire a proper knowledge of the operative or practical part of midwifery, it is neceſſary that the ſtructure and functions of the genital parts, the ſeveral changes which they undergo by pregnancy, and the cauſes which may prevent conception, or retard delivery, ſhould be known. We proceed, therefore, to give a conciſe view of theſe ſubjects.

Deſcription

Deſcription of the Soft Parts of Generation.

The genital ſyſtem is ſituated partly without the *pelvis*, and partly within its cavity. The parts are divided into *External* and *Internal*.

The external parts are, the *Mons Veneris*; the *Labia Externa*, the *Labia Interna*, or *Nymphae*; the *Clitoris*; the orifice of the *Urethra*; the *Os Externum*; and the glands of the parts.

The internal parts are, the *Vagina*, and the *Uterus* with its appendages.

External Parts.

The *Mons Veneris* is that rounded prominence above the *pubes* which makes the lower part of the belly.

From the inferior part of the *Mons Veneris* ariſe the *Labia Externa*, or *Labia Pu-*

Pudendi *. They are continued downwards and forwards, in the direction of the *ſymphyſis pubis*, as far as the *perinaeum*; and cover ſome other of the exterior parts.

On ſeparating the external *Labia*, appear the *Labia Interna*, or *Nymphae*. They are nothing more than two ſmall folds, or doublings, as it were, of the greater *Labia*, and have on that account by many been called *Labia Minora*, or leſſer *Labia*. They are continued downwards on either ſide, and terminate nearly oppoſite to the orifice which opens into the bladder. Their principal uſe is to guard the *urethra* from external injury, and allow the parts to ſtretch, for they diſappear in time of delivery, and are again obvious when the tone of the parts is reſtored.

At their upper part, the *Nymphae* † ſeem to unite and give origin to a red projecting body, called the *Clitoris*.

The

* *Pudendum* is a general term for all theſe parts together.

† The name *Nymphae* probably aroſe from their ſuppoſed uſe in directing the ſtream of urine.

The *Clitoris* is of different ſizes in different women, and in ſome it grows to a great length. Such women obtain the name of Hermaphrodite.

Downwards from between the *nymphae*, nearly oppoſite to where they terminate, is a ſmall riſing prominence like a pea, in the center of which is a ſmall opening or hole. This is the orifice of the *urethra*, or paſſage to the bladder. It is called

The *Meatus Urinarius*. Its ſituation and direction ought to be accurately known by the midwife, as the neceſſity for the operation of paſſing the catheter, or ſounding, as it is called, often occurs in unmarried as well as in child-bearing women. Below the orifice of the *urethra* is

The *Os Externum*, or orifice of the *Vagina*. This orifice, which leads to the *vagina*, or Birth, is ſurrounded on the inſide with ſeveral little raiſed bodies, like ragged portions of membrane or ſkin. They are called *Carunculae Myrtiformes*, and are ſuppoſed to be the remains of a membrane which covers the vagina in young girls.

When

When this membrane is entire, it is called *Hymen.* In children, theſe parts have much the appearance of membrane. A ſlight degree of inflammation will make them cohere and cloſe up the orifice of the *vagina.* The breaking of this membrane, which occaſions the ſhedding of a few drops of blood, was, in the days of ignorance and ſuperſtition, conſidered as the only infallible mark of viginity. But this appearance may depend on the contraction of the parts, and various other circumſtances; and few men are now ſo credulous as to depend on an appearance ſo vague and precarious. For, while a few of the medical faculty aſſert the conſtant exiſtence of this membrane, and conſider it as one of the parts peculiar to females, others deny it altogether, or deſcribe it as rare, uncommon, and unnatural. They recommend it as a rule not only carefully to inſpect theſe parts at birth, but to paſs a ſmall female catheter to clear the paſſage and remove any obſtruction. If this was neglected, it

was

was thought that it might afterwards produce many inconveniences, as the child grows up, from confinement and accumulation of the menſtrual blood.

On the inſide of the *Labia*, and within the orifice of the *Os Externum*, are placed a number of little bodies called glands. Their uſe is to pour out a glary ſlime called *mucus*, to keep theſe parts moiſt and ſlippery.

Theſe external parts are plentifully ſupplied with nerves, and hence endued with an exquiſite degree of ſenſibility. In proportion to their ſenſibility they are irritable, that is, occaſionally liable to ſwelling, inflammation, and their conſequences. Even in the eaſieſt labours, under the beſt management, they are apt to ſwell and inflame; therefore, touching or handling ſhould be ſeldom practiced; and, when it is abſolutely neceſſary, it ought to be done with all poſſible gentleneſs and delicacy.

An attention to the ſtructure, figure, and ſituation of theſe parts, is ſurely, then, a point of the greateſt conſequence; for much

of our ſucceſs in practice will depend upon it.

The inferior portions of the great *Labia*, at the *Os Externum*, are bounded by

The *Perinaeum*, which is the ſpace between the *Os Externum* and *Anus*, or fundament. Its length, in the natural ſtate, is little more than an inch; but, when ſtretched in time of labour, it often exceeds three inches. When thus extended, it becomes very thin, and is apt to be lacerated, or torn, by the head, ſhoulders, or breech of the child preſſing againſt it. Hence, at theſe times, this accident ſhould be carefully guarded againſt, by ſupporting it firmly in time of the pain.

The *Anus*, or fundament, is the paſſage into the *Rectum* or ſtrait gut.

The orifices of theſe parts run in a direction, not quite ſtraight, but a little curved or ſlanting.

This points out the proper method of introducing the catheter into the *urethra*, a finger into the *vagina*, and a glyſter-pipe into

into the *anus*, which is firſt a little downwards and backwards, then forwards and upwards.

The internal parts of the genital ſyſtem are, the *Vagina*, *Uterus*, ands its appendages.

The *Vagina*, or paſſage to the womb, vulgarly called the Birth, lies immediately under the bladder, and upon the *rectum* or ſtrait gut. In its natural ſtate, it is about four or five fingers breadth in length or depth, and in width or diameter ſufficient to admit a finger eaſily. It is narrower at each end, wider in the middle; but, in length and depth, it is liable to conſiderable variation in different women, at different periods of life, and in different circumſtances. Thus, it is narrow and contracted in young women, though capable of conſiderable dilatation. It is ſurrounded with a kind of folds or wrinkles, which have a beautiful appearance in virgins, not unlike the plaits of a well-dreſſed fine ſhirt. Theſe, beſides other uſes, are admirably contrived

to

to allow of its diſtention; for, by long continued, or frequent connection with men, or from child-bearing, it loſes this appearance more and more, till, at laſt, it becomes quite ſmooth.

This cavity is perforated with many orifices from glands, from whence a quantity of *mucus* is ſecreted, which lubricates and moiſtens the whole ſurface.

Its ſubſtance is membranous, but plentifully ſupplied with nerves; ſo that no part of the body is more ſenſible.

It is connected at the upper part with the bladder, and at the back part with the ſtrait gut; ſo that any diſorders in the one will be very readily communicated to the other. When ſtretched in time of labour, by the long continued preſſure of the child's head, it is apt to inflame, ſuppurate, or tear. If this ſhould happen at the upper part, where it is connected with the bladder, an involuntary flow of urine for life is often the conſequence; if, where it is connected with the gut, an incurable fiſtulous ſore will

will be produced, and the ſtools will be diſcharged continually from the *vagina*. It is alſo expoſed to much injury from the officious handling of unſkilful practitioners.

The internal coat of the *vagina*, or membrane which lines it, is liable to inverſion, which conſtitutes the diſeaſe called the *Prolapſus of the vagina*. Where the parts are much relaxed, or in thoſe women ſubject to a *prolapſus*, this internal membrane is often protruded before the child's head in time of labour, and puſhes outwards, appearing without the *os externum*, like a large round fleſhy tumour. In this ſtate the *vagina* has been frequently miſtaken, by the ignorant practitioner, for ſome part of the child, taken hold of and pulled with violence, till the woman was miſerably torn or deſtroyed.

The *Vagina* reaches from the *os externum*, till it gets a little beyond the orifice of the womb.

The *Uterus*, or womb, opens into the cavity of the *vagina* by its neck, which projects

projects within the *birth*, ſomething like a nipple; in the center of this projecting tubercle is the orifice of the womb. The broad upper part, or body of the womb, is called the *Fundus Uteri:* The narrow part or neck is called the *Cervix* or *Collum Uteri;* and the orifice is diſtinguiſhed by the different names of *Os Internum*, *Os Tincae*, or *Os Uteri.*

The *Uterus* is of the ſhape of a pear, or ſmall powder flaſk, broad at the upper part or *fundus*, gradually becoming narrower as it approaches towards the *cervix*, till it terminates in its projecting orifice. It is about three inches long, ſituated between the bladder and *rectum;* its cavity, in the unimpregnated ſtate, is ſo ſmall as to be ſcarcely perceptible. Its ſituation is ſo looſe, that it is capable of occaſionally receding, by which the *vagina* is rendered longer and deeper, or of ſinking into the *pelvis*, by which the *vagina* is ſhortened.

The external membrane of the womb is lengthened beyond its body on both ſides, and

and forms the *Ligamenta Lata*, or broad ligaments. They ſerve to connect and ſuſtain the womb to the ſides of the *pelvis*, and to conduct the nerves and blood-veſſels belonging to it.

The *Ligamenta Rotunda*, or round ligaments, are two round long chords, as it were, which deſcending from either ſide of the *fundus* of the womb, go out of the belly, and are inſerted in the groins or thighs. They ſupport the *uterus*, and prevent its riſing too high.

The *Fallopian Tubes* are contained within the doubling of the broad ligament on either ſide, going out from the *fundus* of the womb. They are ſlender hollow tubes; in their natural ſtate flaccid. The one extremity is looſe and ragged, like a fringe, with a ſmall orifice in the center; being quite detached, it floats in the cavity of the belly. The other orifice opens within the womb, at each corner of the *fundus*.

The *Ovaria*, or female *Teſtes*, are two ſmall oval bodies, ſomething like the teſticles

ſticles of a cock flattened. They are placed at the ſides of the womb, a little below the ragged ends of the Fallopian tubes. In young healthy women, they are large, more plump, and rounded. In thoſe advanced in life, or who have born many children, they waſte, ſhrivel, and become ſmaller.

The genital ſyſtem is admirably conſtructed for the important purpoſe of the preſervation of the ſpecies. The manner how this is effected is a ſubject ſtill involved in doubt and obſcurity.

Theory of Generation.

After many diſputes, it appears, at length, probable, that the future child, which, in its very minute ſtate, is called the *Germ* or *Embryo*, ſubſiſts in the *Ovaries* of females, and that what has been ſtiled the *act of generation*, is only the means intended by providence to ſupply it with life. With that view

view the womb and *vagina* are plentifully ſupplied with nerves, and, during the communication between the ſexes, ſeem to be endued with a double portion of ſenſibility. The ſtate of the nerves which occaſions this increaſed ſenſibility is, probably, communicated to the Fallopian tubes, by which their ragged ends are erected, and applied to the *germ* in the *ovarium*, by which *it* eſcapes from its confinement. It finds, in the open extremity of the tube, a ready acceſs, and through the tube itſelf a convenient paſſage to the womb, to which it ſoon adheres, and is nouriſhed, during nine months, by the mother's blood. In conſequence of the act of generation, the germ eſcapes from the *ovarium*, and the motion of its inherent fluid commences, for, though ſupplied with fluids from the mother, they are circulated by its own powers. On this circulation of the fluids life depends; and the germ, when endued with life, is fully poſſeſſed of the means of continuing it.

The womb, beſides containing and af-

fording nouriſhment to the *foetus*, furniſhes the menſtrual blood.

Of the Menſes, or Courſes.

This evacuation, which every woman is well acquainted with, appears about the 13th, 14th, or 15th year; in this climate rarely earlier, and ſeldom later; and ceaſes about the 45th or 50th. It is liable, however, to ſome variety in different women, and in different climates, both with reſpect to its firſt appearance, its time of ſtopping, the periods of recurring, its quantity and duration.

It commonly appears once in twenty-eight or twenty-nine days, making a lunar month. From this circumſtance, probably, the opinion of the moon's influence in occaſioning this evacuation has ariſen. It uſually continues to flow for three, four, or five days, though moſt commonly for three only. The quantity generally diſcharged is from four ounces, (that is, the fourth

fourth part of an Engliſh pint) to eight or ten.

The appearance of the *menſes* marks the age of maturity, and ſhows the *uterus* to be in a proper condition to admit, retain, and give nouriſhment to the *foetus*.

The approach of the *menſes* is commonly announced by the following ſymptoms: Fullneſs, tenſion, or pain in the breaſts; headachs; ſometimes a ſlight degree of nauſeating ſickneſs; pains in the belly and loins, ſtriking down the thighs; debility; often giddineſs of the head; heavineſs, weakneſs of the eyes, and a faint bluiſh or livid circle under the eye-lids. In general, this evacuation is always preceded with one or more of the above ſymptoms; for the ſituation of the woman may often be readily learned from the particular appearance of her countenance. In many caſes, no ſuch alteration can be obſerved, and the woman herſelf ſuffers no deviation from her uſual ſtate of health.

It

It is well known, that thoſe women are moſt healthy who have this diſcharge moſt regularly; and, on the contrary, women who ſuffer bad health, either want it altogether, or have it ſparingly, exceſſively, or at irregular intervals. Hence it has been ſuppoſed to be ſo much connected with health, and ſo eſſential to the female conſtitution, as to prove the ſource of moſt of the diſeaſes incident to the ſex.

A prejudice, for a long while, prevailed, that, when the menſtrual evacuation was diminiſhed or ſuppreſſed, ſomething bad was retained in the habit. This aroſe from an erroneous opinion, now almoſt entirely exploded, that the menſtrual blood was of a poiſonous quality, would, by its vapour, kill animals, deſtroy vegetables, ſtop fermentation, and the like; and, therefore, that a woman's preſence at theſe times was extremely dangerous; that, if ſhe touched wine, it would immediately become ſour; if ſhe aſſiſted at the proceſs of making gelly, it would never thicken; at ſalting meat, it would

would be ſpoiled. Theſe ſuperſtitious prejudices are of antient date, and now only kept up by the credulous and ignorant.

On this principle, the ſlighteſt obſtruction was regarded as an evil of the moſt ſerious nature, and the moſt vigorous efforts were employed, in order to expel what was imagined to be ſo hurtful to the conſtitution. Late obſervations, however, ſhow, that the menſtrual blood of a healthy woman, is an evacuation of pure, good blood, like that from other parts of the body. It is liable, indeed, to the diſeaſes of the general maſs, and ſometimes to a little acrimony, from ſtagnating in the *vagina*.

The diſcharge firſt occurs, becauſe ſuch an evacuation ſeems to be wanted; it continues while there is occaſion for it, diſappearing in time of pregnancy and giving ſuck; and ceaſes when the conſtitution no longer ſtands in need of it.

When the conſtitution ſuffers from an *obſtruction*, it is not from the retention of

diſeaſed

diſeaſed blood, which ought to have been evacuated, but from the veſſels being overloaded, or from the ſudden accidental ſtoppage of an accuſtomed evacuation. And, it may be here obſerved, in general, that irregularities of the monthly diſcharge are oftener the effect of ſomething faulty in the habit, than the cauſe of the bad health which at that time occurs.

Complaints which depend on this evacuation occur,

1*ſt*, About the time of its commencement;

2*dly*, After the habit has been eſtabliſhed; or,

3*dly*, About the time of its final ceſſation.

1*ſt*, The commencement of the menſtruating age produces an aſtoniſhing change in the female conſtitution. It ought, therefore, to be viewed as a critical ſeaſon, which demands a greater ſhare of attention than has generally been paid to it. Many diſeaſes occur about that age, and others which had

had previouſly reſiſted the whole powers of medicine, often abate or diſappear, on the regular eſtabliſhment of the menſtrual evacuation.

Parents, and thoſe who have the care of young girls, ought to be admoniſhed, carefully to obſerve, and prudently to conduct the management of them at this tender and critical age. Late hours, exceſſive heat, by dancing, or long confinement in crouded places, and irregularities of every kind, ought to be prohibited in the ſtrongeſt terms. When there is reaſon to expect the approach of the menſtrual indiſpoſition, every thing which may diſcompoſe the mind or body ſhould be carefully avoided, particularly cold with moiſture, or after the body has been over-heated, anxiety, and paſſions of every kind. The food ſhould be plain and ſimple; groſs food, as pork, ſalmon, &c. alſo aſtringent, or auſtere drinks, as port and claret wines, cyder, ſour milk, unripe fruit, &c. ſhould be abſtained

ſtained from. In other reſpects, no greater alteration in the uſual diet needs be obſerved.

Nature ſometimes anticipates, ſometimes protracts thoſe appearances which mark this period; for ſometimes the *menſes* occur at a very unuſual and early age; and in others, they are protracted till a year or more after the ordinary time. This depends partly on the growth of the body, and partly on the ſtate of the womb, and ought only to be regarded when attended with ſymptoms of bad health, as general debility or weakneſs, pale countenance, depraved appetite from impaired digeſtion, and their conſequences. Such ſymptoms are commonly known by the name of *Chloroſis*, or green ſickneſs, and are to be treated, without much attending to the *menſes*, by preſcribing thoſe remedies that invigorate and ſtrengthen the ſyſtem, as free air, exerciſe, nouriſhing diet, bitters, preparations of ſteel, particularly in the form of mineral waters, or tincture of ſteel, which may be

be taken by drops, as ten or fifteen twice a day, in a cupfull of bitters, and the like, varying the remedies according to the particular circumſtances of the caſe. If the health be much impaired, and the muſcular fleſh appears to waſte, there is hazard of hectic fever enſuing; therefore, recourſe ſhould be had to the advice of the moſt ſkilful of the faculty.

2dly, Women who have formerly been regular, often miſs the expected return, or the evacuation appears out of time, or it is more ſparing, and merely the appearance of blood, or it greatly exceeds the uſual quantity.—It is only the total abſence for one or more periods, that obtains the name of a *ſuppreſſion or obſtruction.*

Irregularities in regimen, expoſure to cold when under menſtruation, violent paſſions of the mind, and a variety of other occaſional cauſes, may accidentally put a ſtop to the menſtrual diſcharge. In general, when once ſtopped, it is in vain to at-

tempt recalling it, till the approach of the next period. In a ſimple obſtruction ariſing from cold, errors in diet, paſſions of the mind, or the like, bathing the feet and legs in warm water, or ſitting over its ſteams for ſeveral nights before the expected period, taking a gentle vomit, or a laxative, is all the treatment which we would adviſe with a view to reſtore or promote it. If theſe fail, the beſt method of recalling the diſcharge, is to preſcribe for the ſymptoms with which the ſuppreſſion is attended. For example, if the *menſes* be ſuppreſſed or obſtructed, and the patient is young, florid in the countenance, diſtreſſed with headachs, or pains in different parts of the body, hot fits, reſtleſſneſs in the night, and other marks of fulneſs, blooding, repeated doſes of cooling phyſic, as Glauber ſalts, cream of tart. ſoluble tart. and ſpare living, will prove the moſt effectual remedies. And the ſame treatment would be proper, whether the menſes were ſuppreſſed or not. But, on the contrary, if ſhe complains of

want

want of appetite, debility on the leaſt motion, night ſweats, and other ſymptoms of great weakneſs, a very different plan ought to be purſued. The diet ſhould be more ſolid and nouriſhing, along with the moderate uſe of wine, gentle exerciſe, the Peruvian bark, a courſe of ſteel mineral waters, and the cold bath, with the various preparations of aloes, joined to aſſa foetida and ſoap; for it is always neceſſary to vary the method of cure, according to the particular circumſtances of the caſe.

In ſpite of all the noiſe about *provocatives*, as they are called, for bringing down the menſes, there is not, as yet, in the whole catalogue of *medicines*, any one which can be relied on for that purpoſe. Aloes has derived its great character in promoting the menſes, in conſequence of its violent operation and ſtimulating quality. In conſtitutions ſubject to piles, from the *teneſmus* or ſtraining it occaſions in going to ſtool, it very often brings on that diſeaſe; in the ſame way it may have a tendency to bring down

down the menſes: Hence it is extremely improper in delicate ſyſtems, and in women ſubject to floodings. All ſtrong violent purgatives will act in the ſame manner.

If purgatives fail, white muſtard-ſeed may be tried; a ſpoonful is the common doſe, evening and morning, or a ſmall cupful of a weak infuſion of horſe radiſh may be taken twice a day, which, in ſome inſtances, may be conſidered as no contemptible remedy. Some uſe an infuſion of red madder (the dye ſo called) in beer, with the ſame view, and extol it with many encomiums. The proportion is two ounces to a Scots quart of beer, to ſtand infuſed for two or three days; the doſe a beer glaſsful twice a day; or, it may be given in ſubſtance, beginning with a ſmall doſe, as fifteen grains of the powder, increaſing it afterwards to a ſcruple twice or even thrice a day. Medicines given with a view to promote the menſes, ſhould be begun about a week before the expected return, and continued for a few days after,

ter, or till the uſual evacuation recurs. Theſe, or an infuſion of penny-royal, tanſey, balm, or chamomile, may alſo be uſed with advantage when the diſcharge is ſcanty or ſparing.

Many other remedies are employed in order to remove obſtructions or promote menſtruation, ſuch as exerciſe, as dancing, riding, &c. the warm bath, the cold bath, electricity, and the like; and nothing is more certain than that the ſame end is often accompliſhed by very different and oppoſite means. But, ſince a remedy which in one inſtance may prove mild, inoffenſive, or ſucceſsful, will in another conſtitution throw the patient into the moſt violent nervous or hyſteric diſorders, medicines of this kind ought to be given with great caution.

Painful menſtruation chiefly happens to women of a delicate nervous habit, and to women of faſhion and high life. Thoſe of a lower claſs, inured to exerciſe and labour, and ſtrangers to thoſe refinements which

which debilitate the ſyſtem, and interrupt thoſe functions ſo eſſential to the preſervation of health, are ſeldom obſerved to ſuffer at theſe times, unleſs from a diſeaſed ſtate of the womb.

Delicate women, who are liable to ſickneſs, headachs, or pain of the back and lower part of the belly, while *out of order*, ought to be cautious what they eat or drink. They ſhould frequently lie down in bed through the day, when oppreſſed, languid, or pained; and ſhould drink now and then moderately of any tepid diluting liquor that is moſt grateful to the ſtomach, as gruel, weak white wine whey, cow milk whey, penny royal or balm tea, or the like, and carefully guard againſt cold, fatigue, and night irregularities.

Thoſe ſpaſmodic or grinding pains with which many women are ſo much diſtreſſed in time of menſtruation, are beſt relieved by opiates. Half a doſe, as fifteen drops of laudanum, may be taken in a cupful of warm tea in the morning, and twice that quantity

quantity in weak negus, white-wine whey, or gruel, before going to bed at night.

Women who uſually ſuffer much pain from menſtruation, ſhould be provided with a ſmall phial of laudanum, or a ſmall box of grain and half grain opiate pills; a doſe of either ought to be taken immediately, when threatened with painful ſymptoms, and repeated evening and morning, in the manner directed, till the menſtrual period be over. The binding quality of the opiate muſt be counteracted by the uſe of gentle laxatives or glyſters.

Theſe indulgencies, however, ſhould not be allowed but upon emergencies, as they are with difficulty left off.

Of Flooding, or an immoderate Diſcharge of the Menſes.

The menſes differ in quantity and time of duration in different women; and the ſame

ſame quantity which occaſions debility and dejection of ſpirits in ſome, will, to others, prove ſalutary or critical. Hence we can only judge of the exceſs by its effects.

Women who are nervous and delicate, whoſe health has been impaired by frequent labours or miſcarriages, whoſe blood is vitiated by a ſcorbutic or ſcrophulous taint, or whoſe conſtitution is weakened by a ſedentary inactive life, debilitating diet, or by any other cauſe, are chiefly ſubject to immoderate, long continued, or frequent menſtrual evacuations.

When the blood evacuated, inſtead of being purely fluid, comes off in large lumps, clots, or concretions, attended with a conſiderable degree of pain, throbbing, or bearing down, the caſe is highly alarming and dangerous; for it indicates a diſeaſed ſtate of the womb.

Frequent or exceſſive floodings are always attended with languor and debility, a degree of faintneſs, pain in the loins, loſs of appetite, and, when violent, anxiety, coldneſs

coldneſs of the extremities, and hyſterics. The conſequence of frequent attacks are, univerſal weakneſs of the ſyſtem, which bring on nervous complaints, ſwellings of the legs, and a gradual waſting, or hectic fever, which, at laſt, terminates fatally. The cure depends much on the cauſe, the conſtitution, and manner of life of the patient. More, in general, is to be expected from *regimen* than medicine.

Cooling diet, cool air, and cold applications, as wet cloths, frequently applied to the *os externum*, when the flooding is exceſſive and dangerous, are the principal remedies.

The patient ſhould be kept as cool as poſſible, and perfectly at reſt, both in body and mind, while the flooding continues. Her food ſhould be light and nouriſhing, but not heating, and drink ſhould be taken quite cold. When great anxiety, languor, and faintneſs occur, light nouriſhment muſt be frequently given, and now and then a little cold claret, or ſimple cinnamon water,

by way of cordial. In ſuch circumſtances, there is alſo a neceſſity for applying large thick compreſſes of ſoft linen, ſoaked in vinegar and water, to the loins, belly, and *os externum*, to be frequently renewed, leſt they become warm.

Little dependence is to be had on the power of medicine for giving an immediate check to the diſcharge. When the patient is of a full habit, hot and feveriſh, the nitrous mixture, will be moſt proper; but otherwiſe, roſe-tea, agreeably ſharpened with ſpirit of vitriol, is preferable. Alum whey is alſo a powerful remedy, and readily procured; a dram of allum will curdle an Engliſh pint of milk; the whey muſt be ſweetened to the taſte, and a ſmall cupful muſt be drank often, as the ſtomach will receive it.

When there is much pain or anxiety, and no inclination to vomiting, opiates may be given with advantage.

The

The ſtate of the belly muſt be attended to, and properly regulated by the uſe of glyſters; but they muſt be merely emollient, and exhibited in a degree of heat, which we call tepid, that is, ſcarcely milk warm. To prevent the return of the diſorder, and to ſtrengthen the ſyſtem, a light decoction of the Peruvian bark, ſharpened with elixir of vitriol, is a remedy more to be depended on than any other.

3. *Laſtly*, Towards the decline of life, when the menſes are about to ceaſe, has always been conſidered as an important and critical period. Many women are much at a loſs how to manage themſelves at this time; and many, on the firſt preludes of this approaching change, erroneouſly attempt, by art, to keep up or recall a diſcharge which nature no longer finds it neceſſary to continue.

Few women wiſh to be old; and moſt of them are averſe to improve, in a proper manner, the friendly admonition. They flatter themſelves, when the preludes of its total

total ceſſation firſt appear, that it is only a temporary interruption or irregularity, occaſioned by cold, or depending on ſome adventitious or accidental circumſtance. Their utmoſt endeavours are, therefore, employed to recall it, by uſing violent forcing remedies; or, if theſe fail, they attempt, by evacuations, change of regimen, and the like, to ſupply its place or throw off the bad conſequences of its retention.

In advanced life, the quantity of blood and juices gradually becomes leſs copious, and the waſte is greater than the repair; many parts ſhrivel and contract; the womb, in particular, grows harder and more compact; the veſſels are contracted, and many of them become impervious; ſo that the blood which formerly flowed eaſily through them, is now denied a paſſage; the accuſtomed evacuation at laſt finally ceaſes, and terminates the age of child-bearing.

The morbid ſymptoms which occur at this period, are rather to be aſcribed to a general change of the habit, than merely

to

to the abſence or ceſſation of the menſtrual evacuation. However natural this change may be to the female conſtitution, if we conſider the many irregularities introduced by luxury and refined life, it is not ſurpriſing that this period, as well as the age of maturity, ſhould prove a frequent ſource of diſeaſe.

When the *menſes* are about to ceaſe, the ſymptoms that occur are extremely different, according to the conſtitution, and particular circumſtances of the patient. In ſome, the evacuation ſeems to ſtop all at once, while no bad conſequences follow. In others, for many months, ſometimes for ſeveral years preceding its final ceſſation, it returns after vague and irregular intervals, at one time having the appearance of little more than merely a *ſhow*; at another, it comes on impetuouſly, and the flooding continues for ſome time exceſſive. Women who are moſt apt to ſuffer at the decline of life, are thoſe who have never had children; who have never enjoyed good regu-

lar

lar health; whoſe health has been impaired by frequent labours or miſcarriages; who have been ſubject to irregularities of the menſes, to the whites, or to nervous and hyſteric complaints. It frequently, however, happens, that women of a delicate relaxed habit, who had formerly been diſtreſſed with painful menſtruation, or with nervous complaints while regular, gradually recover, and for a long while enjoy a ſtate of health to which they were formerly ſtrangers.

If the menſes ſtop ſuddenly, at an earlier period than may be expected, and there is no reaſon to ſuſpect pregnancy, the nature of the ſymptoms will point out the proper management. When no particular complaint ſupervenes in conſequence of their abſence, it would be exceedingly abſurd to bring down the body by an abſtemious diet, low living, and evacuations; on the contrary, if the ſymptoms indicate a redundancy of blood, bleeding, gentle purgatives, and a ſpare diet, will be adviſable.

The

The ſymptoms that appear about this time are either,

1*ſt*, Thoſe of fullneſs, in conſequence of the ſudden ſtoppage of an uſual evacuation in full habits.

2*dly*, Frequent, long continued, or immoderate floodings in feeble relaxed habits; or,

3*dly*, General affections of the ſyſtem from an alteration of the conſtitution.

1*ſt*, It is well known, that many women who were of a ſlender make, ſoon become jolly and corpulent after the ſtoppage of the menſes. This plenitude diſcovers itſelf by various ſymptoms. Some are affected with headachs, hot fits, reſtleſſneſs in the night, violent pains in the belly and loins. In others the legs begin to ſwell, the face grows bloated, or eruptions appear on different parts of the body; and many are troubled with inflammatory or bleeding piles. Theſe complaints can only be relieved by ſpare living, now and then letting a little blood, keeping an open belly, and uſing ſuitable exerciſe.

Spare

Spare living—The diet ſhould be mild, light, and moderate, conſiſting chiefly of vegetables, milk, fruit, light puddings, &c. Animal food ſhould be ſparingly uſed; white of fowl, or very light ſoops, as beef-tea, veal-broth, chicken-water, &c. are only allowable; and ſpiritous, vinous, and heating drinks of every kind ſhould be abſtained from.

Now and then letting blood—The time and quantity muſt be regulated by the ſymptoms and conſtitution. When head-achs, or giddineſs, fluſhings after eating, oppreſſed ſleep, and other ſymptoms of fullneſs come on, nearly about the uſual period of menſtruation, loſing ſix, eight or ten ounces of blood from the arm will generally give much relief. The ſame remedy muſt be repeated once in two, three, or four months, as the urgency of the ſymptoms ſeems to require; afterwards, the quantity and repetition may be leſſened, as there ſeems to be leſs occaſion for it.

An

An open belly—A gentle cooling purgative ſhould be taken once a week, or oftener, as heat, pain, or gripes in the bowels, or any of the above ſymptoms of fullneſs occur. The beſt laxatives in ſuch caſes are, cream of tartar and magneſia, Glauber's ſalt and manna, infuſion of ſenna with manna and tamarinds, or prunes. Heating, griping purgatives, as pills with aloes, ſulphur, and every thing of a ſtimulating kind, ſhould be carefully avoided.

Exerciſe is beneficial, for the ſame reaſon that indolence and inactivity prove hurtful. It muſt be ſuited to the ſituations and circumſtances of the woman. A prudent exertion of domeſtic activity, moderate walking, or riding on horſeback, are the moſt proper.

If the above rules be attended to, the effects of fullneſs and plenitude will ſoon be removed; and, if there be no other diſeaſe in the habit, natural health will be reſtored.

2. *Frequent, or immoderate floodings* in feeble relaxed habits. In delicate or relaxed conſtitutions, the menſes, near their time of ceſſation, appear like a flooding, continue for a week, ten days, or longer, and are afterwards abſent for many months; at other times they recur every fortnight, or oftener. In ſuch circumſtances, the flux muſt be checked by cold wet applications, as formerly directed; the painful ſymptoms muſt be relieved by giving opiates, and the conſtitution afterwards ſtrengthened by a nutritious diet, bitters, and, when the patient is able to bear it, the cold bath.

If the flooding appears to proceed from fullneſs, proper evacuations, and the cooling regimen, as already fully treated of in the article of flooding, are neceſſary.

3. Laſtly, When other ſymptoms of diſeaſe appear, as ſhooting pains about the under part of the belly, or region of the womb, and in the breaſts, and other ſymptoms of bad health, they evidently indicate

a change in the conſtitution, which depends on other circumſtances than the cloſing of the veſſels of the womb, and require ſuch means to be employed as the moſt ſkillful and experienced of the profeſſion can adviſe.

It ought to be remembered, that the womb is acutely ſenſible; that from it the firſt ſymptoms of diſeaſe often ariſe; that thoſe parts firſt ſuffer that are moſt immediately, by nervous ſympathy, connected with it; and that, ſoon after, the general health becomes affected. But, when there is no actual morbid prediſpoſition in the habit, by a careful attention to regimen and manner of living, women have a good chance, when this period is happily over, of afterwards enjoying a very comfortable ſtate of health.

Diſeaſes of the Genital Parts.

Before we treat of pregnancy, and thoſe ſubjects immediately connected with it, we ſhall

ſhall conſider ſome other complaints incident to the genital parts in the unimpregnated ſtate, with the moſt effectual method of cure. An attentive midwife will thus be enabled to appriſe the woman of the hazard of her caſe, or, when ſlight, to direct the moſt proper method of removing it.

The parts of generation, in common with others of a ſimilar ſtructure, are liable to ſwelling, inflammation, and their conſequences. Theſe may proceed from internal cauſes, or be the effect of external injury.

1. The *Labia*, when inflamed and excoriated, that is, fretted or ulcerated, from whatever cauſe, may grow together; as all parts in that ſtate, when for ſome time in contact, will do: For example, if two fingers, or toes, having their contiguous ſides in an excoriated ſtate, be brought together, and kept in cloſe contact for ſome time, they will cohere or grow together. This excoriation is produced by any acrid diſcharge,

diſcharge, generally by the whites, the cleanſings after lyings-in and miſcarriages, and the menſes when putrid by ſtagnation. —Cleanlineſs, and frequent waſhing with warm milk and water, are the beſt preſervatives and cure, and ſhould be uſed after every evacuation of the menſes; for the blood very ſoon grows putrid. If theſe ſhould not ſucceed, pledgets with ſperma ceti ointment muſt be applied, and, afterwards, the parts muſt be often bathed with cold water, in order to ſtrengthen them.

2. The *Clitoris* and *Nymphae*, in ſome women, are apt to grow to an uncommon ſize; ſometimes it is the effect of diſeaſe; ſometimes no cauſe can be aſſigned for it. Except when inflamed, ulcerated, or much pained, no treatment is at any time proper. One of the *nymphae* ſometimes projects a little farther than the other; but it is a circumſtance of no conſequence, and little regard needs be paid to it.

3. Difficulty, pain, or ſuppreſſion of urine,

rine, are very frequent complaints of women.

Sometimes they are occaſioned from gravel, or ſmall concretions of ſtone getting into the urinary paſſage; ſometimes from a glary *mucus*, or ſlime choaking it up; ſometimes theſe ſymptoms ariſe from natural temporary contraction of the paſſages themſelves; and ſimilar ſymptoms are alſo produced by a falling down of the womb.

When gravel is ſuſpected, the woman ſhould ſit over the ſteams of warm water, or bath the body up to the navel in a convenient tub. If a ſtone be found working its way forwards, nothing will more powerfully aſſiſt its expulſion than the warm bath. Repeated laxative glyſters are alſo proper, and the painful ſymptoms muſt be relieved by opiates. If theſe remedies fail, the woman ſhould be ſounded, and if the catheter cannot be introduced, or if a ſtone be found in the paſſage, a ſurgeon muſt be called.

Glary

Glary mucus will be diſſolved and removed by frequent bathing with warm water.

The *contraction* commonly occurs about the periods of menſtruation: It generally ariſes from cold, and is to be removed by actual warmth, by directing warm ſteams to the parts, by fomenting the belly, by rubbing warm camphorated oil on the belly, by emollient glyſters, or by opiates.

When ſuppreſſion, or difficulty of urine, is occaſioned by a falling down of the womb, which frequently happens, it muſt be replaced. Gently raiſing the womb with the finger introduced into the *vagina*, while the woman lies on her back, with her head and ſhoulders lower than her breech, will, in many caſes, without uſing any other means, enable her to make water freely. If this fails, the catheter muſt be paſſed, raiſing up the *uterus* with the finger in the *vagina*, till the urine be evacuated.

4. The *Os Externum* is ſometimes ſhut up

up by a membranous expanſion called *Hymen.*

This is an appearance entirely preternatural, and at a certain period of life produces the moſt painful and troubleſome complaints. Hence the neceſſity of carefully inſpecting theſe parts immediately after birth, for that is the time for removing every unnatural appearance, capable of remedy, and of preventing much future trouble. Should the *hymen* be neglected till the period of menſtruation commences, a tumor or ſwelling will be gradually formed, and from the confinement of the menſtrual blood, and the puſh it makes at the accuſtomed periods, the moſt violent bearing down pains, reſembling thoſe of actual labour, will be occaſioned.

The nature of the diſeaſe will readily be diſcovered by the painful ſymptoms; by their remiſſion during the interval of the threatening menſtruating periods, and from the ſtate of the parts to the touch; for the finger will be refuſed admittance within the

the *os externum*, and a tenſe membranous ſubſtance be perceived, which has, in ſeveral inſtances, from its appearance, and the violence of the ſymptoms, been miſtaken for the membranes of a child.

The only cure is, to open the tumour, ſo that the contents may be freely diſcharged, uſing afterwards ſuch dreſſings as will prevent the lips or ſides of the wound from growing together. This operation is the province of the ſurgeon.

5. *Narrowneſs of the Vagina*, or a contraction of the orifice of the *os externum*, ſometimes alſo occur. The *vagina* of a full grown woman is, in ſome inſtances, ſo much contracted, as ſcarcely to admit of a ſmall writing quill.

It may often be dilated by a ſmall tent of prepared ſponge, compreſſed after being immerſed in melted wax, and afterwards allowed to cool, then cut into a proper ſize, ſmoothly rounded, beſmeared with *pomatum*, and gently introduced within the *os externum*; a thread muſt be fixed to the

extremity, for pulling it out. By the natural moiſture of the part, the tent will ſwell and expand till it recovers its original ſize.

The tent muſt be withdrawn every day, and a new one, a little larger, introduced in its ſtead. This practice muſt be continued for a week, or longer, till the paſſage be ſufficiently enlarged.

6. *Fluor Albus*, or Whites, is a diſeaſe which occurs, perhaps, more frequently than any other female complaint.

The common cauſes of it are, weak debilitated conſtitutions, either from Nature, or full groſs living, with little exerciſe, or from frequent lyings-in.

The *whites* are nothing more than an increaſed diſcharge of that glandular moiſture which naturally lubricates the parts. It may be confined to the *vagina* only, or to the neck of the womb, or, it may come from both. When it is confined to the womb alone, the diſeaſe is cured by pregnancy. When the diſcharge comes from the

the *vagina*, pregnancy generally increaſes it. This diſeaſe often prevents conception, and is a frequent cauſe of miſcarriage. The cure is chiefly to be accompliſhed, in relaxed conſtitutions, by ſtrengthening the habit, and particularly the genital parts; for which purpoſe, a proper regimen, Peruvian bark, mineral waters with ſteel, and ſea-bathing, are the moſt powerful remedies. When the habit of body is full, ſuitable evacuations muſt be uſed.

The diſcharge is often to be diminiſhed, though ſeldom entirely cured, unleſs in young people, when the complaint is recent, by ſtyptic or aſtringent applications. With this view, the parts may be waſhed twice or thrice a day, with a weak ſolution of ſugar of lead, or alum in roſe-water, viz. the proportion of 30 or 40 grains to half an Engliſh pint of liquid; alſo, claret wine, an infuſion of red-roſe leaves in boiling water; green-tea; or the mineral water of the Moffat Hartfield ſpaw in Scotland,

land, or of Tunbridge in England, make a very proper waſh. With any of the liquors now mentioned, the parts may be ſafely bathed with a bit of ſpunge, or they may be thrown into the *vagina* once or twice a day, through an ivory pipe, by means of the elaſtic reſin. But, except when the diſeaſe is inveterate, moſt women are averſe to the uſe of injections.

The matter diſcharged is of various colour and conſiſtence, and, from its acrimony, often inflames and excoriates the parts, or excites the moſt troubleſome and painful itching. In ſuch circumſtances it is of the utmoſt conſequence to keep the parts clean and cool, by frequent bathing with cold water, or with any of the above mentioned aſtringent liquors.

Though the matter evacuated is, very generally, of a white ſlimy appearance, ſcarcely ſtaining the linens more than a colourleſs ſtearch; yet, from ſtagnation, or a depraved ſtate of the fluids, it may become coloured or acrimonious, and, in that ſtate,

ſtate, has been confounded with a very diſagreeable infectious diſeaſe; nor is it, in all caſes, eaſy to eſtabliſh the diſtinction. We can only judge of the nature of the diſorder from the candour of the woman, from her circumſtances and connections, and the particular circumſtances of the caſe.

The *fluor albus* is often connected with the ſtate of the ſtomach, when the Peruvian bark, infuſed in lime-water, is one of the beſt remedies. It may be here obſerved, too, that women have, in many inſtances, been cured of the moſt obſtinate habitual *fluor albus*, by giving ſuck.

7. *Prolapſus uteri*, or falling down of the womb. The womb ſometimes changes its ſituation, falling down into the *vagina*, and preſſing on the *urethra* and *rectum*. This is what is vulgarly called a *falling down of the mother*. It generally proceeds from a weakneſs and relaxation of theſe parts; hence, it is a common conſequence of the whites; of miſcarriage; of frequent

pregnancy

pregnancy and labour; of flooding; and of every diſeaſe which debilitates the body. It is alſo frequently occaſioned by too early exerciſe, or fatigue after lying-in, before the womb has recovered its original ſize.

The ſame ſtrengthening remedies preſcribed for the whites, ſhould be uſed here; for the conſtitution in general, and the tone of parts in particular, muſt be reſtored.

If internal ſtrengthening remedies and gentle aſtringent applications ſhould fail, and avoiding, for ſome time, every kind of bodily exerciſe and fatigue, the womb muſt be replaced, and the woman kept in a conſtant ſtate of reſt and tranquillity. *Peſſaries*, which are introduced into the *vagina* to ſupport the womb, are painful and dangerous remedies, and ought not to be uſed but in the moſt critical emergencies, by a ſkillful ſurgeon.

In young girls, a ſponge dipped in alum water will often ſuperſede the neceſſity of a peſſary; and, in every ſubject, the moſt ſafe and convenient one is a ſimple ring of ivory

ivory or box-wood, ſuited to the ſtate of the parts.

The *vagina* is alſo ſubject to *prolapſus*; and it is often confounded with that of the womb. The diſeaſe is nothing more than the internal coat of the *vagina* inverted, and puſhed out in the form of a tumour, frequently protruding entirely without the *os externum*. In that ſtate the womb will be dragged along with it, and the orifice of the womb will appear at the upper part of the tumour, which diſtinguiſhes the falling down of the *vagina* from that of the womb. It ariſes from the ſame cauſes, and requires nearly the ſame treatment. Aſtringent injections of alum water, or ſolution of ſugar of lead in decoction of oak-bark; the cold bath; —internally, the Peruvian bark, mineral waters, with ſteel, and ſuitable regimen, are the beſt remedies.

The falling down of the womb, or protruſion of the *vagina*, ought to be carefully diſtinguiſhed from diſeaſed tumours of theſe parts.

8. *A Polypous Tumour.* A *polypus* of the vagina or womb, is a fleſhy tumour of a ſpongy conſiſtence, which grows to ſome part of the *vagina* or womb.

The ſymptoms are ſomething ſimilar to falling down of the womb, as bearing down pain, difficulty, pain, or ſuppreſſion of urine; but the diſeaſe is always attended with frequent floodings. The tumour, like the womb, ſhifts its poſition according to its ſituation and ſize; but, there is this remarkable difference between the former and the latter, that the *polypus* is fixed by a ſmall neck, and its broad or moſt bulky part firſt preſents. Though, like the womb, it frequently changes its poſition, and is often protruded without the *os externum*, it can always be readily diſcriminated from the falling down of the womb by the following infallible marks of diſtinction.

1. The tumour of the *polypus* is not only broad and bulky, like the upper part of the womb, but wants the orifice always obſervable in the prolapſed womb.

2. As

2. As it generally adheres by a ſmall ſlender neck, it can be eaſily moved, or twirled round, as it were, by the finger.

3. The *polypus* is attended with frequent floodings, and a copious diſcharge of whites, with diſagreeable itching, and ſometimes conſiderable pain.

4. It oftener occurs about the decline of life, than at other times.

If the diſeaſe be early attended to, in many inſtances, it can be removed without danger, or occaſioning much pain; but, when the tumour is allowed to increaſe to a great ſize, the danger is proportionally greater. The cure is a chirurgical operation, which is entirely out of the line of the midwife's province.

9. *Sterility*, or *Barrenneſs*. The cauſe of barrenneſs is, in many caſes, of difficult inveſtigation. It may proceed from a fault in the ſeminal fluids of either ſex. In women, it frequently ariſes from a diſeaſe in the parts of generation, or from ſome original defect in their formation, or ſtructure,

particularly irregularities in the monthly flow, the whites, a ſtoppage of any of the paſſages, or a diſeaſed hardneſs, called a *ſchirrhus*, either in the womb, ovaries, tubes, or ligaments.

The fault is ſometimes deeply rooted in the conſtitution in both ſexes, and it is often difficult to learn whether it exiſts in the man or woman. It is ſuppoſed to occur more frequently in the female, but is often the melancholy conſequence of the *battered conſtitution* of the *debauchee*, who aſſumes the character of *huſband* when he can no longer ſupport that of the *rake*.

In women, ſmallneſs of the breaſts, irregular, ſparing, or deficient menſes, long continued or exceſſive *fluor albus*, and the appearance of extreme delicacy, are among the moſt certain ſigns of ſterility.

If the diſeaſe be in the ovaries, or Fallopian tubes, it can neither be diſcovered nor remedied; and the only circumſtances in which a cure can be attempted is, by a chirurgical operation, where the *vagina* is too

narrow

narrow or imperforated; by reſtoring and augmenting the menſtrual flow when deficient and ſparing; and checking the drains of a *fluor albus*.—But practitioners, moſt converſant in theſe ſubjects, are beſt able to form a rational conjecture of the cauſe, and to ſuggeſt the moſt probable means of cure.

10. *Spurious*, or *falſe Pregnancy*. Diſeaſe ſometimes aſſumes the appearance of pregnancy, and not only deceives the uninſtructed patient, but impoſes on the ſkillful phyſician.

Obſtructed *menſes* frequently produce the ſymptoms of breeding; and wind in the ſtomach and bowels is often miſtaken for the pregnant womb.

But the moſt common cauſes of theſe fallacious appearances are, tumours of the ſoft parts contained in the *pelvis*, as diſeaſed womb, *ovaria*, or tubes, dropſical ſwellings, and the like.

Diſeaſe may be diſtinguiſhed from true pregnancy chiefly by the irregularity of the

ſymptoms,

ſymptoms, by the age of the woman, and by information derived from the examination of the belly externally, and the ſtate of the womb.

The progreſs of pregnancy is, in moſt caſes, uniform and regular. The ſymptoms of breeding either abate or are entirely removed, ſoon after the firſt quarter. A diſeaſed womb, *ovarium*, or tubes, in their advanced ſtate, may readily be perceived by the touch from the *vagina*. The hard unequal feel, and painful ſenſation when touched, are the certain and infallible marks of diſeaſe. Complaints of this kind moſt frequently occur when the *menſes* are about to take their leave.

It may be here neceſſary to caution a female practitioner, againſt a ſymptom very apt to miſlead and deceive her, that is, an uncommon hardneſs of the breaſts, and a whey-like, or even milky liquor now and then diſtilling from the nipple. Any diſeaſed ſwelling about the womb, from the well

well known ſympathy between it and the breaſts, will often occaſion that appearance.

Laſtly, *Falſe Conception*, and *Moles*.—So late as at the beginning of the preſent century, theſe were common ſubjects of ſpeculation, and every newly married woman was under the moſt dreadful apprehenſions on account of them. It was imagined that they derived their origin from witchcraft, from the arts of the devil, or proceeded from ſome defect, or an unnatural mixture of the ſeminal fluids of the ſexes. In many parts of the world ſuch abſurd and ridiculous notions yet, in ſome degree, prevail.

When the *Embryo*, or *Foetus* is, by any accident, deprived of life in the early months, and is ſtill retained in the womb, the delicate and gelatinous ſubſtance will readily be diſſolved.

The after-birth, or the remaining parts of the *Ovum*, ſometimes grow, even after the death of the *foetus*. At other times, by the addition of clots of blood, they increaſe

creaſe conſiderably in bulk, and being ſqueezed by the preſſure of the contracting womb, are expelled in that ſtate. It is this ſubſtance that has been commonly called a *falſe conception.* When it remains longer in the womb, and acquires a ſolid conſiſtence, like a *ſchirrus*, without any cavity in its center, or traces of its ever having been an organic body, it is called a *Mole.*

Mere clots of blood, retained in the womb after delivery, or after immoderate floodings, at any period of life, conſtitute another ſpecies of mole that more frequently occurs than any of the former. Theſe, though they may aſſume the appearance of pregnancy, are, generally, expelled ſpontaneouſly; and, unleſs the womb be in a diſeaſed ſtate, are never attended with dangerous conſequences.

Soft ſpungy tumours of the womb, agreeably to the opinion of ſome, conſtitute another ſpecies of mole, beſide thoſe already enumerated.

Of

Of Pregnancy.

When the rudiments of the future child are conveyed into the womb, impregnation takes place; or, in other words, we ſay that the woman has conceived. While the parts which form the conception are blended together, ſo that one part cannot accurately be diſtinguiſhed from the other, the whole maſs is called *Ovum*, a word ſignifying an egg. This *ovum* conſiſts of four membranes; the *placenta* or after-birth; the *funis umbilicalis* or navel-ſtring, leading to the child; and the ſurrounding watery fluid in which it floats.

Before the child acquires a diſtinct and regular form, it is termed *Embryo*, and afterwards it retains the name of *Foetus* till birth.

We ſhall firſt ſhortly trace the progreſs of the child, and then conciſely deſcribe the other parts.

It

It is exceedingly difficult to aſcertain the proportional growth or progreſs of the *foetus* in the womb. In the early months, it is extremely ſmall in proportion to the after-birth. An *ovum* between the eighth and ninth week after conception is commonly about the ſize of a hen's egg; the *embryo* at this time nearly about the weight of twenty grains. At three months, the *ovum* may be about the weight of ſeven or eight ounces, and the foetus ſcarcely three ounces. At ſix months, the *ovum* may be about 20 ounces, and the foetus 12; at eight months, about eight pounds, and the foetus nearly ſeven. The after-birth generally arrives at its full bulk about the ſeventh or eighth month.

An *Embryo* of four weeks is near the ſize of a common fly. At ſix weeks, the ſize is about that of a ſmall bee, the head nearly as large as the whole body, and the extremities now beginning to ſhoot out; the pulſations of the heart alſo are viſible. At 12 weeks, the foetus is near three inches

inches long, and its form pretty diſtinct. At four months, the *foetus* meaſures about five inches; at five months, between ſix and ſeven inches; at ſix months about eight, or between eight and nine inches; at ſeven months between 11 and 12 inches; at eight months between 14 and 15 inches; and at full time from 18 to 21 inches, and from 12 to 14 pounds weight. But general calculations, for many reaſons, muſt be very uncertain.

The period of geſtation is nine callendar months, that is, from 270 to 275 days; but, in the human ſpecies, as in other animals, it may be anticipated or protracted. Some women bring forth their children at the end of the eighth month, others go nine lunar months only, and produce as full grown children as thoſe who go the uſual term. The protraction of the time of geſtation is leſs frequent, though there are many well atteſted facts in ſupport of it. Cows, and other domeſtic animals, the date of whoſe conception can be known to

a day, frequently exceed their term of delivery eight or ten days, and in ſome inſtances even more. Is it not therefore reaſonable to preſume, that the ſame circumſtance may happen to women, though the uncertainty of their reckoning renders the preciſe period more difficult to be aſcertained? Women commonly reckon from the ſtoppage of the menſes, and from the quickening of the child. The former of theſe is vague and uncertain; for conception may happen immediately after the menſtrual evacuation, or not till three weeks later, which will make the difference of, at leaſt, three weeks in the reckoning.

The *quickening of the child* is ſtill more vague and precarious. Women ſeldom perceive the ſenſation of the child's motion till the womb aſcends above the brim of the *pelvis*. This change in the poſition of the *uterus* will be affected by the ſhape of the *pelvis*, the ſize of the child, and manner of life of the mother. By the quick-

ening

ening of the child is underſtood nothing more than that the mother is ſenſible of its motion; for the child lives from the moment of the animation of the germ, in conſequence of conception; but the firſt ſenſation of the movements of the *foetus* may depend more on the ſenſibility of the mother's feelings, than on the ſtirrings of the child. Women, too, are obſerved to quicken at different times in different pregnancies; no dependence, therefore, can be had on a circumſtance ſo precarious.

Many occaſions, however, occur to enable a woman to form a probable conjecture when the time of her lying-in may reaſonably be expected. Experience will afterwards aſſiſt her; for many perceive themſelves to be pregnant from ſome particular ſymptom which affects them at ſome particular period of geſtation. It is a well known fact, that there is a greater diſpoſition in the *uterus* to conception immediately after the diſappearance of the *menſes* than at any other time, and, on this foundation,

dation, many women are enabled to reckon with ſurpriſing exactneſs.

The *Embryo*, on its firſt formation in the *ovum*, and the *foetus*, during the whole time of pregnancy, is encloſed in three membranes, viz. the *falſe chorion*, which is a double membrane, the *true chorion*, and the *amnion*, or internal membrane next the child, which includes a fluid called the liquor of the *amnion*, in which the *foetus* floats.

The *Placenta* or *after-birth*, is formed by that part of the *ovum* which firſt attaches itſelf to the womb. It is a thick, ſoft, fleſhy like maſs, connected to the foetus by the navel-ſtring, and to the womb by the external layer of the *falſe chorion*. It differs in ſhape and ſize; it is thickeſt at the center, or middle, and gradually becomes thinner towards the edges, where the membranes go off, all round, making a complete bag or covering to incloſe the waters, navel-ſtring, and child. The after-birth may adhere to any part of the womb, though

though it adheres moſt frequently to the upper part. It is compoſed of an immenſe number of blood veſſels, which running from the external to the internal ſurface, by a beautiful group of branches, at laſt meet, more or leſs towards the center, and form the umbilical rope or navel ſtring.

The outer ſurface of the *after-birth*, or that connected with the womb, ſeems divided by many ſmall lobes, or fiſſures. Theſe lobes are moſt remarkable when the after-birth has been pulled from the womb by force. The reaſon of this is, that, when we deliver the *after-birth* before the womb has time, by its contraction, to ſeparate and diſengage it, the fine membrane that connects the *after-birth* to the womb is torn; by this means the mouths of the blood-veſſels are expoſed; the contraction of the womb, by which only they can be ſhut, is retarded, and the blood flows freely. Hence ariſe thoſe profuſe and alarming floodings that generally follow the premature and precipitate extraction of the after-birth, but

which

which may always be prevented, by giving time for the womb to contract itſelf, before any attempt be made to deliver the *placenta*.

The internal membrane called the *Amnion*, immediately incloſes the child and ſurrounding water. It is by much the fineſt and moſt tranſparent of the membranes, having no blood-veſſels that can be diſcerned by the eye. It is, however, firmer and ſtronger than any of the others.

The true *chorion* is alſo thin and tranſparent when ſeparated from the other membranes; but the two layers of the *ſpungy* or *falſe chorion*, are opaque, that is, not tranſparent. This double *falſe chorion* is compoſed in this manner: The outer coat or membrane, after having covered the whole body of the *ovum*, meets at the *placenta*, and turns back again to cover the inner ſurface of the womb. The other membranes belong to the after-birth, and come off along with it. The membrane that lines the womb, called by Dr Hunter *decidua*,

dua, or falling membrane, is caſt off with the cleanſings. If it ſhould be peeled off by the raſh extraction of the after-birth, a flooding will enſue, as already obſerved.

The waters contained within the *amnion*, are called the *liquor amnii*. They are pureſt in the early months, afterwards become thick and muddy, ſometimes ropy, and therefore would be very unfit for the nouriſhment of the child; add to this, that the *foetus* cannot ſwallow, ſo that it can only be nouriſhed by the blood of the mother conveyed by veſſels running along the navel-ſtring.

The uſe of the water is to promote the diſtention of the womb, to prevent the parts of the *foetus* from growing together, to defend the *foetus* from external injury affecting the mother, and to dilate and lubricate the paſſages at birth.

Water is ſometimes collected between the *chorion* and *amnion*, or within the two layers of the *chorion*. This is called the *falſe water*. It may be evacuated at any

time

time of pregnancy, without any other inconvenience than the alarming appearance it occaſions; except that, by the rupture of the external membrane, the reſiſtance of the others is proportionally weakened.

Twins, triplets, &c. have each a *placenta*. Though, in general, they adhere together, commonly at the edges, yet they are ſometimes ſeparate, and diſtinct, and caſt off at different times, each chord having its own after-birth and membranes. This ſhould put practitioners on their guard, leſt they leave their patient till they be well aſſured that there is no other child.

The *navel-ſtring* connects the child and *placenta*, and conveys blood from the one to the other. The blood, therefore, of the mother is twice abſorbed before it reaches the child, firſt from the womb by the veſſels of the *placenta*, and again from them by thoſe of the child.

The *chord* is of different length and thickneſs, commonly about the thickneſs of an ordinary finger, and of length ſufficient

cient to admit of the birth of the child with ſafety. The thickneſs of the chord is owing to a quantity of gelatinous fluid interpoſed. The thickeſt chords are not always the ſtrongeſt; ſo that, for this reaſon, as well as for many others, we ſhould truſt more to the natural ſeparation of the afterbirth, than to effecting it by pulling at the navel-ſtring.

While the child is contained in the womb, its poſition is ſuch, as to take up the leaſt room; it deſcribes a figure nearly oval, of which the head makes one, and the breech the other extremity. The head is generally downwards, and reclined forward towards the knees, which are drawn up to the belly; the heels are bent backward towards the breech, and the arms are commonly placed along the ſides, or ſupporting the head and face. But, as the *foetus*, during a great part of pregnancy, floats, as it were, in a quantity of fluid, various accidents may occur to produce an alteration of the ordinary poſition; and

when the child changes its poſition after it moves itſelf with difficulty in the *uterus*, from its increaſed ſize, it may be confined in the ſame poſture during the remaining time. In this manner *preternatural* labours ſometimes happen.

Changes the Womb ſuffers by Pregnancy.

During the progreſſive increaſe of the *foetus*, the womb ſuffers conſiderable changes, both with regard to its figure, bulk, and ſituation.

For the firſt two or three months, the cavity of the womb is of a triangular figure, as before impregnation; but, as it ſtretches, it gradually becomes more rounded. In general, the pregnant, or gravid womb, as it is called, never riſes directly upwards, but inclines a little to one ſide, moſt commonly to the right. This never happens, however, in ſuch a degree as to prove the ſole cauſe, either of interrupting or preventing

ing labour, as the famous Dr Daventer, and many late authors, erroneouſly imagined, who aſcribed moſt of the difficulties that occurred in labour, to the *oblique poſition* of the womb.

Though the womb is gradually diſtended from the moment of conception, and its poſition conſequently changed, it is yet difficult, from any appearances, to judge of pregnancy in the early months.

In the firſt three months, the orifice of the womb, when touched by the finger, feels ſmooth and even, and there is little difference from the unimpregnated ſtate. When any difference can be perceived, the projecting part of the mouth of the womb will ſeem larger, longer, and more expanded. The *uterus* now ſinking into the under part of the *pelvis*, will be readily felt to the touch by the finger, and the *vagina*, on that account, will ſeem ſhorter.

As the contents of the *uterus*, in early geſtation, are entirely confined to the *fundus*, or upper part, the firſt change from

pregnancy

pregnancy ariſes from the womb ſinking downwards, towards the lower circumference of the *Pelvis*; the inteſtines following the direction of the *uterus*, the belly by that means will be ſomewhat diminiſhed in its ſize, and appear flatter. Hence 'the belly diminiſhed in ſize, and ſenſibly 'flatter, along with the uſual ſymptoms of 'breeding,' give a more probable preſumption of pregnancy than any others, which can be depended on in the early months.

In early geſtation, the *uterus* is confined within the bony cavity, has a natural tendency from its weight and increaſing bulk to gravitate downwards; the adheſion of the *ovum* or conception is ſlight and feeble, and the mouth of the womb is then only ſlightly cloſed with a ſoft glary *mucus*. For all which reaſons, abortion or miſcarriage occurs much more frequently in the early than later months; a very neceſſary and important caution to thoſe who wiſh to guard againſt the hazard of miſcarriage; for

for a very trifling accident or neglect will then, often, be ſufficient to occaſion it.

As the *fundus* of the womb ſtretches, the neck ſhortens; but little difference can be obſerved on the neck till ſome time after the 5th month. From this time it gradually loſes its ſheath-like appearance, till at laſt it be diſtended nearly equal with the *fundus*; ſo that, at full time, the neck entirely diſappears, and the orifice feels ſomething like a ring on a globe, or appears of an oval figure, having the longer ſides behind and before, like the mouth of a young puppy or tench, from whence it obtained the name of *Os Tincae*.

Nearly about the fifth month, the womb riſes above the *pelvis*; and the *fundus* being now entirely above the *brim*, may be felt, by applying the hand on the belly, like a hard rounded ball, between the belly and back-bone. If the woman be rather ſpare than jolly, pregnancy may be judged of with more certainty about this time, by feeling

feeling the belly outwardly, than by the touch of the finger in the *vagina*. About the ſeventh month, the *fundus* of the womb reaches as far as the navel, and, at full time, aſcends almoſt as high as the pit of the ſtomach. For this reaſon women are more ſubject to vomitings, breathleſſneſs, and cough, in a firſt, than following pregnancies; for, by the habit of frequent diſtention, the belly, and other incloſing parts yield to the ſtretching of the womb, which projects more outward, and leſs upwards, the oftener pregnancy is repeated. During pregnancy, the veſſels of the womb become prodigiouſly enlarged; and the number and ſize of them are moſt conſpicuous where the after-birth is attached: The mouths of the veins, at that part of the ſurface of the womb which the after-birth covers, are ſo large as to admit the point of a finger; but the immediate contraction of the womb, after delivery, prevents the fatal effuſion of blood that might be expected.

The

The ſubſtance of the womb continues pretty nearly of the ſame thickneſs during impregnation; but, in ſome inſtances, when much diſtended, is evidently thinner. It is alſo of a ſofter, and more ſpungy texture. It ſometimes tears by the vaſt diſtention in time of pregnancy, or in time of labour, when the poſition of the child is aukward, and the labour throes are frequent and ſevere. This accident, however, very rarely happens, perhaps not once in many thouſand inſtances. But, by unſkilful attempts to turn the child, or to ſtretch the orifice of the womb, it has often been torn, and the unfortunate woman has fallen a victim to the raſhneſs of an ignorant operator. Even the judicious Dr Smellie was not aware of the dreadful conſequences of anticipating nature in her operations; for he candidly acknowledges, that, by attempting too early to dilate the orifice of the *uterus*, in order to turn the child, the *uterus* was frequently torn; and although the woman

ſome-

ſometimes recovers where the thin membranous edge of the orifice, only, is torn *, lacerations of the body of the *uterus* are always fatal.

The ligaments of the womb ſuffer conſiderable changes by pregnancy. The round ligaments are much ſtretched as the womb mounts upwards; and to this cauſe thoſe pains are probably owing, which begin in the belly, ſtriking down to the thighs, which are very diſtreſſing to many women, towards the latter end of geſtation. The womb, during pregnancy, is chiefly enlarged towards the *fundus;* ſo that the broad ligaments are left much below the principal bulk of the womb; conſequently, from pulling violently at the ſtring to deliver the *placenta*, the *fundus* may be pulled down through the mouth of the womb. This is ſtiled *the inverſion of the womb*, and is a very dangerous, and frequently fatal accident. This violence has another bad effect; for, as the *uterus* has not time to contract

* See Smellie's Midwifery, vol. 3. coll. XXXV. caſes X. and XVI.

contract and close the vessels, fatal floodings often ensue.

Super-foetation.

Among many ridiculous notions entertained relative to generation, it was formerly imagined that a woman was capable of conceiving a second time during pregnancy, at the distance perhaps of several weeks after the first conception.

Soon after impregnation takes place, the internal surface of the womb is lined by the external coat turned back from the *ovum;* the orifice of the womb is also cemented by a gelatinous *mucus;* the Fallopian tubes become loose and flaccid, and are supposed, by the change the womb undergoes, to be removed at too great a distance to be able to reach the *ovaria*, to receive from them another *ovum*.

This very improbable opinion arose from a cirumstance that now and then happens

in the human ſpecies, where one of two or more *foetuſes* dies in the womb at an early period, and is thrown off ſome time before the other, or along with it, at full time, in a putrid or ſpoiled ſtate. Thus two children, or three, may be born at full time, of different ſizes, though conveyed into the womb at one conception.

Extra-uterine Conception.

Inſtances ſometimes, though rarely, occur of *foetuſes* remaining in the *ovarium*, or *tubes* *, or where the *foetus* grows to the outſide of the womb, or to ſome of the neighbouring parts. Theſe *foetuſes* are always of a ſmall ſize, and generally die at an early period. They are often diſcharged by abſceſſes through the ſkin of the belly,

* See the manner how generation is effected, p. 40. 41.

belly, or by ſtool. A few extraordinary hiſtories are recorded, of women having carried ſuch *foetuſes* for a great many years without danger, or even much apparent inconveniency.

Monſters.

The various kinds of monſters that occur in the animal creation, may chiefly be accounted for either from the parts of the *embryo* or *foetus*, in their ſoft and delicate ſtate, by ſome accident being jumbled together, or from one or more *foetuſes* adhering too near each other, and at length coming into contact; by this means ſome parts grow exceſſively, others are deſtroyed, others appear double, &c. There are no nerves in the *placenta*, or connecting medium between the mother and child; hence few are now ſo credulous as to imagine, whatever fabulous ſtories have been related to the contrary, that the imagination

of

of the mother has any power to alter the form or condition of the *foetus*.

Some of thoſe deviations from nature are, however, too obſcure and myſterious to admit of any rational explanation.

DISEASES OF PREGNANCY.

The diſeaſes of pregnancy, though troubleſome, are very ſeldom fatal. Many women, as ſoon as they have conceived, feel a ſlight degree of fever, and diſagreeable pains in different parts of the body; the ſtomach loaths its uſual food, or what is taken is, ſoon after, thrown up; and the appetite is ſometimes ſo whimſical, that the moſt unnatural and diſagreeable ſubſtances are longed for.

Theſe early ſymptoms have been generally imputed to the *obſtruction of the menſes*; but they frequently occur before any

any evacuation can be ſaid to be ſtopped; for women, it is well known, more readily conceive ſoon after menſtruation, than at any other time, and they then feel the ſymptoms of breeding ſeveral weeks before the following period.

Many women ſuffer a conſiderable degree of pain and indiſpoſition, even while under the moſt regular and natural menſtruation. Cold, violent emotions of the mind, or other irregularities, at theſe times, often occaſion the moſt ſudden and dreadful hyſteric, or nervous diſorders. This immediately ariſes from ſome change in the womb, which we ſtile *irritation*; for every part of the female frame ſympathiſes with the womb. The probable cauſe of the ſymptoms which occur in the early ſtages of pregnancy, therefore, is a change in the ſtate of the womb, in conſequence of conception; for women of their firſt child, and nervous women, chiefly, ſuffer in the early months.

Diſeaſes

Diſeaſes incident to the pregnant ſtate are liable to conſiderable variation, not only in different women of different conſtitutions, but in the ſame woman in different pregnancies, and at different periods of the ſame pregnancy. Some complaints, as thoſe of breeding, are confined to the early ſtages; others occur in the advanced months, ariſing from the ſtretching of the womb, and its preſſure on the neighbouring parts; and a third ſeries may be mentioned, confined to no particular period, but which happens at all the different terms of geſtation.

1. The moſt common ſymptoms of breeding are, nauſeating ſickneſs and vomiting; heart-burn; *diarrhœa* or looſeneſs; unnatural cravings; ſwelling and pain in the breaſts; fainting; nervous, or hyſteric fits.

Sickneſs and Vomiting—chiefly occur very early. They are ſometimes ſlight, at others attended with much ſtraining, bleedings at the noſe, violent headachs, and frequently

quently with miſcarriage; they are, generally, attended with languor, low ſpirits, and diſturbed reſt, and often give way to air, company, and gentle exerciſe. If, however, theſe remedies fail, the complaints require more ſerious attention. When ſymptoms of fullneſs appear, in young women formerly healthy, along with pain, or giddineſs in the head, fluſhings in the face and palms, and when the ſickneſs is conſtant, or exceſſive, bleeding, with an open and ſpare diet, will afford the greateſt relief. But, in nervous habits, where there is the appearance of delicacy, where the woman is debilitated from want of appetite, frequent vomitings, a diſpoſition to ſweat in the night, or after uſing inconſiderable motion, bleeding muſt be avoided with the utmoſt care; and we are *then* chiefly to truſt to a light nutritious diet, given by little at a time, and often repeated, conſiſting of beef tea, young fowl, light puddings, and the like, always regarding, as far as prudence will permit, the particular taſte

of

of the patient. The moderate uſe of wine may alſo be neceſſary, and ſmall doſes of any light ſtomachic bitter, as Columbo, or the Peruvian bark. After a very reſtleſs night, an opiate may be given, now and then, the following night, with great advantage.

When the ſtomach loaths all kind of food; when the ſickneſs is exceſſive; when the ſtrainings are frequent and ſevere, fourteen or fifteen grains of ipecacuan may be given, not only with ſafety, but often with the happieſt effects.

The indigeſtion incident to the early months is increaſed by improper food, which the woman is often obliged to ſwallow, much againſt her inclination; it is alſo kept up by confinement and a ſedentary life. Gentle vomits are, therefore, in this view, abſolutely neceſſary, and affect the body much leſs than natural ſtraining. They require to be repeated once a week, or oftener, as the uſe of them is indicated by ſickneſs and loathing, reachings, an ill

taſte

taſte in the mouth, putrid belchings, and the like. Breeding ſickneſs, however, it muſt be obſerved, is ſometimes merely a nervous affection, proceeding from irritation in the womb, in the manner mentioned; and, in many inſtances, neither regimen, change of air, mineral waters, bitters, nor any remedy, will prove beneficial for removing or palliating it, and no ſenſible relief is afforded till the womb changes its poſition, and riſes above the brim of the *pelvis*. From this time the motion of the child is diſtinctly perceived, and few complaints afterwards occur, except thoſe which ariſe from the preſſure of the womb on the ſurrounding parts.

2. *Heartburn*.—Many women know that they are with child from this ſymptom alone, which, in ſome inſtances, accompanies all the ſtages of pregnancy. At other times, it is peculiar to breeding, or to advanced geſtation. As a pregnant ſymptom, it is often impoſſible to remove it entirely till delivery. But it may be palliated

by attending to the ſtate of the ſtomach. Thoſe foods which are obſerved to occaſion it ought to be carefully avoided. The acceſcent ſtate of the ſtomach, or tendency of what is taken to become ſour, muſt be corrected by drinking lime-water, prepared chalk and water, or, when coſtive, by taking ſmall doſes of *magneſia*, to which, when the ſtomach is much diſordered, a few grains of fine rhubarb may, occaſionally, be added. The digeſtive faculty ſhould alſo be reſtored by the uſe of the bark. When it diſagrees in ſubſtance, an infuſion in boiling water is an agreeable, and, in ſuch caſes, a uſeful preparation. The proportion is half an ounce of fineſt powder of bark to an Engliſh pint of boiling water. It may be elegantly flavoured by adding ſome cinnamon bark; or, if the ſtomach be very weak, two or three table ſpoonfuls of the ſpiritous tincture of bark, or of plain brandy, may be added to the watery infuſion. The doſe is a cupful twice or thrice a day.

3. *Di-*

3. *Diarrhœa*, or *Looſeneſs*.—This complaint alſo generally ariſes from the diſordered ſtate of the ſtomach, and is to be palliated or removed by gentle vomits, ſmall doſes of rhubarb, opiates, and a proper regulation of the diet.

4. *Unnatural Cravings*.—The longings of pregnant women, however ſeemingly abſurd, often appear to be entirely involuntary. Wonderful inſtances of them are related in medical hiſtory. In general, the paſſion, though ſometimes keen, is of no long duration. It is commonly increaſed by indulgence, and chiefly confined to high life. But, when it can be done with ſafety, it ought to be gratified. The woman *then* expects a little indulgence, and is undoubtedly entitled to it. The appetite is feeble and whimſical, the ſtomach loaths many ſubſtances, and rejects others. The inclination ought, therefore, to be ſtudied; and although an unlimited compliance with every deſire might be improper, the wiſhed for ſubſtance, when it can be eaſily obtained,

ed, ſhould be procured. Anxiety and diſappointment in the irritable ſtate of breeding, may produce diſagreeable conſequences; for the mind, as well as body, requires tranquillity. The only precaution, in theſe circumſtances, neceſſary to be obſerved, is, not to carry our indulgence ſo far as to do hurt.

5. *Swelling and pain in the Breaſts.*—This is a natural ſymptom, and not much to be regarded. Tight preſſure ſhould be carefully avoided, and the breaſts, when very tenſe, and much pained, may be rubbed with warm fine olive oil twice a day, and afterwards covered with ſoft flannel or fur. The belly ſhould be kept moderately open, and the diet ſhould be rather ſpare. The uneaſy tenſion ſeldom continues above a few weeks; when it is exceſſive, and the woman is young, of a full habit and florid complexion, bleeding is alſo eſſentially neceſſary.

6. *Fainting, Nervous, or Hyſteric Fits,*—ſometimes occur about the time of *quickening*,

ing. They are commonly ſlight, of ſhort duration, never threaten any dangerous conſequence, and are always relieved by the uſual remedies of mild cordials, tranquillity of mind, and reſt. But, ſhould they be occaſioned from falls, fright, or immoderate paſſions, as diſappointment, vexation, melancholy, and the like, they frequently end in the loſs of the child, and ſometimes threaten the life of the mother.

In thoſe caſes, the only certain remedy is opium.

Laſtly, Some women have a remarkable degree of thirſt and feveriſh heat; ſome have laſſitude, drowſineſs, or frequent inclination to ſleep, during the firſt quarter of pregnancy. Theſe evidently indicate a conſiderable degree of fullneſs, and are to be obviated by gentle evacuations, ſpare living, and, occaſionally, exerciſe in the open air. The woman ought then to ſleep by herſelf, lightly covered; the bed-chamber ſhould be open and airy; the diet

ſhould

ſhould be light and cooling, and ripe fruit ſhould have a large ſhare in it.

In ſome inſtances, the general health is much impaired by the *breeding ſickneſs*, which commonly continues till the motion of the child be diſtinctly perceived, that is, till between the third and fourth month, or about the end of the fifth month, when theſe ſymptoms ſpontaneouſly go off, and the uſual health again returns, till another ſeries of complaints occur, from the diſtention and preſſure of the womb in the advanced months.

The II. claſs of complaints which ariſe from the preſſure of the bulky womb, often threaten the life of the mother, while the former ones only ended in miſcarriage. They are,

1. *Difficulty and ſuppreſſion of urine*, which, if early attended to, and if the neceſſary precautions of keeping the belly open, and avoiding fatigue, be regarded, will ſeldom prove troubleſome or dangerous, but cannot be entirely removed till the womb

womb changes its poſition, and, by mounting upwards, riſes out of the *pelvis*, and is then ſupported by reſting on the broad bones of the haunches. This commonly happens about the fourth month, or ſoon after; but if, from fatigue, coſtiveneſs, or any other circumſtance, the womb ſhould be prevented from riſing upwards, it will diſtend backwards, and, by its weight, the *fundus* of the womb will fall back into the lower part of the *pelvis*, and be lodged in the hollow of the *ſacrum*, ſo that the *vagina* will be pulled backward and upward after it. The bulk of the womb may be felt through the *vagina*, and behind it; for it lies between the *vagina* and ſtrait gut; the *os tincae* will, conſequently, be uppermoſt. This is ſtiled the *retroverſion of the womb*.

In the falling down of the womb, in the unimpregnated ſtate, it only changes its place, ſhifting downwards, but ſtill retaining its uſual figure. Thus, the *os tincae* is the preſenting part, though it is ſometimes puſhed ſo low as to protrude without the

os externum. But, in the *retroverted* womb, the *fundus* being the moſt bulky, and the heavieſt part, always makes the moſt depending part of the tumour. It is covered, however, with the *vagina*, and, in the complete ſtate of the diſeaſe, conſtantly attended with a prolapſus of the *vagina*, which protrudes in the form of a rounded tumour without the *os externum*.

In the beginning of the diſeaſe the urine is voided with difficulty; at laſt there is a total ſtoppage of urine, and retention of ſtools. The womb, conſtantly augmented by the increaſe of its contents, ſinks lower and lower, the moſt violent bearing-down pain and ſtraining are brought on. The throes ſoon become ſo violent that the womb ſeems as if ready to be protruded without the *os externum*. The openings at the bottom of the *pelvis* give way to the diſtending cauſe, in the ſame manner as they yield to the head of the child in time of labour, and at laſt the tumour becomes ſo bulky as to elude the poſſibility of reduction.

duction *. In theſe circumſtances, from the continued ſuppreſſion of urine, the bladder is ſo much diſtended that, in ſome inſtances, it hath actually burſted; or, by the inflammation of it and the womb rapidly communicating to the other bowels, the woman, exhauſted by fever, and the moſt excruciating pain, loſes her ſenſes, and dies delirious or convulſed.

This is a ſhort detail of the hiſtory and progreſs of a diſeaſe, which hath till of late been little attended to, and of which many women have unfortunately died. For this reaſon, it has been more minutely deſcribed, that women may learn carefully to attend to the earlieſt ſymptoms, when the threatening conſequences can readily

* In a caſe related by Dr Hunter in London, 4th volume, London Medical Obſervations, the reduction could not be accompliſhed, even after the death of the woman, and though the urine had been drawn off with the catheter, till the bones of the *pubes* were cut through at the ſymphyſis, and forcibly ſeparated from each other.

be prevented. On this occaſion, let me caution the ſex againſt that natural and well meant, but miſtaken delicacy, of retaining their urine, when the call for voiding it is urgent; for no circumſtance more powerfully favours the deſcent of the gravid *uterus*, in the manner now mentioned.

No complaint immediately depending on pregnancy, requires ſo much attention as the diſeaſe juſt now deſcribed. In the beginning, under proper management, there can be no hazard; but, if neglected, the utmoſt danger is to be dreaded; for, if the urine cannot be drawn off, and the tumour reduced, death will be the unavoidable conſequence.

Little ſagacity is neceſſary to diſcover the diſeaſe; it can only happen in the firſt months of pregnancy, and chiefly occurs from the third till the end of the fifth month. From the particular make, or ſhape of the *pelvis*, ſome women are more ſubject to it than others. Thin, ſpare women, for inſtance, are much more liable

to

to it, than thoſe who are plump and jolly. The moſt common occaſional cauſes are, fatigue of every kind, as much walking or riding, dancing, &c. violent efforts of coughing, vomiting, ſtraining when coſtive, or to void urine after a long retention.

The ſymptoms are, 1. Frequent deſire, difficulty, or total ſuppreſſion of urine. 2. *Teneſmus*, or frequent inclination to ſtool. 3. Violent pain and bearing-down of the womb, which, by neglect and fatigue, ſoon increaſe, ſo as to reſemble the throes of labour; and, *laſtly*, When endeavouring to paſs a finger into the *vagina*, a tumour, or rounded ſwelling, is perceived, which preſſes down in the time of pain, like the head of the child in the advanced ſtages of labour.

The cure conſiſts in replacing the tumour, and taking proper precautions to prevent its return. When the diſeaſe is ſlight, it is eaſily remedied; but, if there is much pain and bearing-down, if it has been neglected for ſome time, and the bladder

der much diſtended, there is difficulty in paſſing the catheter to draw off the urine, and much more in reducing the womb.

Such caſes require the advice and management of the moſt ſkillful and experienced of the medical profeſſion; it will be prudent, therefore, for female practitioners to have immediate recourſe to their opinion and aſſiſtance.

The firſt part of the cure conſiſts in removing every obſtacle which may prevent the reduction. With this view, the urine muſt be drawn off with the catheter, and the *rectum* emptied by repeated emollient glyſters. If the parts are ſo irritable or inflamed, that the introduction of the catheter gives great pain, fomentations muſt be firſt applied, or a bath of warm water uſed; and if there is much inflammation or fever, the patient ſhould be plentifully blooded at the arm.

The reduction of the tumour muſt next be attempted, by endeavouring to paſs two or more fingers, well anointed with butter

or

or pomatum, in the direction of the *vagina*, raiſing the *fundus* of the womb upwards and forwards towards the *pubes*, ſo as to favour the return of the *os tincae* to its proper place. This may, at firſt, be attempted while the woman lies on her back; but, if any difficulty occurs, ſhe muſt be placed upon her knees with her head low, and firmly ſecured in that poſition. Sometimes there is a neceſſity for introducing a finger within the *rectum* to aſſiſt the reduction. But, when the womb has been long out of its place, or is puſhed ſo low as to protrude at the *os externum*, when the ſymptoms are violent, and the operation of replacing the womb appears difficult, no female practitioner ſhould attempt it, unleſs the aſſiſtance of a ſurgeon is not likely to be ſoon procured.

A relapſe can only be prevented by confining the woman in bed till the womb, by riſing out of the *pelvis*, becomes ſupported on the broad haunch bones. The belly muſt be kept open, the urine muſt be

regularly

regularly evacuated by the catheter, if it does not paſs freely, and the woman muſt be kept on a light cooling diet, till the dangerous period be over.

2. In the advanced months of pregnancy, coſtiveneſs, piles, ſwellings in the legs, thighs, and *labia*, pains in the back and loins, cough, and breathleſſneſs; ſometimes alſo cramps and cholic pains, ſuppreſſion, difficulty, or incontinency of urine, occur.

Coſtiveneſs is a very common complaint during pregnancy. Cholic, ſtomach complaints, headach, piles, and abortion, are frequently occaſioned from it. It ſhould, therefore, be guarded againſt as much as poſſible. It is generally to be prevented by a proper regulation of diet; and if that fails, ſome gentle laxative, ſuited to particular conſtitutions and circumſtances, ſhould occaſionally be employed, as cream of tartar, magneſia, manna, or lenitive electuary.

But, to remove obſtinate coſtiveneſs, repeated glyſters ought to be adminiſtered.

At

At firſt they may be given purely ſimple, as warm water with three or four table ſpoonfuls of fine oil, or a ſolution of Caſtile ſoap; ſince it is to the diluting reſolving effects of theſe injections that we chiefly truſt. If neceſſary, ſome gentle ſtimulant may afterwards be added, of which about a quarter of an ounce, or half an ounce of common ſalt, ſeems to be the beſt.

The Piles are a common conſequence of coſtiveneſs, and frequently occur in the advanced ſtages of pregnancy. They are of two kinds, external, and internal. In general, they can only admit of a palliative cure during geſtation. For this purpoſe, a light, cooling diet, and keeping the belly moderately open, are the chief remedies. Flowers of ſulphur are ſuppoſed by many to poſſeſs a ſpecific quality for the cure of hemorrhoids. But, it is probable, their good effects depend on their laxative property only. If ſulphur poſſeſſes a heating quality, as has been ſuppoſed, it may be corrected by mixing half the quantity of

cream

cream of tartar with it; and a tea ſpoonful, thus mixed, may be taken occaſionally. When piles are external, attended with throbbing pain, heat, and ſwelling, fomentations and poultices will give relief. If the woman is otherwiſe diſordered with heat and feveriſh indiſpoſition, ſhe ought to loſe blood from the arm; and in ſome inſtances the application of leeches to the ſwelling will be attended with the happieſt effects. But ſuch means of relief muſt be uſed with caution in the pregnant ſtate. Sometimes the piles break, and a conſiderable diſcharge of blood enſues. This evacuation in women of a full habit of body, is generally critical; it not only removes pain and inflammation of the part, but proves, in many inſtances, highly beneficial to the conſtitution. The bleeding, when moderate, ſhould be promoted by fomentations, poultices, and occaſionally ſitting over the ſteams of warm water. It ſhould never be reſtrained, but when it is exceſſive, proves of long duration, or the returns

returns are ſo frequent as to impair the ſtrength.

When the diſeaſe is internal, it is diſtinguiſhed from the former ſpecies by the name of *blind piles*. The only remedies, when attended with pain and fever, are occaſional bleedings, gentle laxatives, and a ſpare cooling diet. Fatigue ſhould be carefully avoided, and the patient ſhould reſt often in the day in a bed or couch.

Swellings of the Legs, Thighs, and Labia, are complaints incident only to advanced geſtation. They chiefly happen in a firſt pregnancy, or where the diſtention of the belly, and conſequently the preſſure of the womb, is very great. Though troubleſome and inconvenient, they ſeldom prove dangerous, where the habit of the body is otherwiſe ſound. At firſt they ſubſide in the morning, and return towards the evening; but at laſt they ſuffer little diminution from the preceding night's reſt. The diſeaſe will only admit of palliation till delivery; for which purpoſe, along

with a light cooling diet, and gentle exercise when the woman can bear it, a frequent lying posture, an open belly, and rubbing the legs twice or thrice a day with a flesh brush, or warm flannel, will prove the most effectual means.

Pains in the Back and Loins, Cholic Pains, Convulsions, and Cramp, are occasioned by the stretching of the womb and its ligaments, or by the pressure of the bulky womb on the neighbouring parts. These symptoms are most troublesome in a first pregnancy, or in twins or triplets. Occasional small bleedings, a proper regulation of the diet, which should be cooling and light, and keeping the belly open, are the best palliative remedies.

If the woman be of a full habit, and liable to inflammatory complaints; if the pressure be very great, as it is in the advanced months of gestation, or when the womb is greatly distended by twins, &c. when proper remedies are neglected, inflammation of the womb, or convulsions, may ensue, or

the

the womb may actually be torn, and the *foetus* and waters eſcape into the cavity of the belly, the event of which is always fatal.

No diſeaſe is more dreadful and alarming in appearance than *convulſions;* though they are confined to no particular period of pregnancy, they are moſt frequent and moſt dangerous in the latter months.

The fits come on very ſuddenly, generally preceded by pains about the region of the womb, anxiety at the pit of the ſtomach, and intolerable headach; theſe are ſoon ſucceeded by diſtortions of the body, foamings, &c. Sometimes the diſeaſe terminates fatally in a fit or two. If the woman ſurvives a few fits, and recovers her ſenſes in the intervals, there is leſs danger. The child is often thrown off by the fits, at whatever period of pregnancy they occur.

As the diſeaſe is always attended with the utmoſt hazard, and frequently kills the woman like a fit of apoplexy, the moſt ſkillful

of

of the medical profeſſion muſt be immediately conſulted. Convulſions may ariſe from the preſſure of the womb *only*, which confines the blood in the upper parts by preſſing on the arteries, or from its being too much ſtretched. Theſe caſes are highly dangerous, becauſe they do not admit of relief till after delivery. It is alſo evident, that they may ariſe from frights, violent paſſions, and too great evacuations, in the pregnant as well as in any other ſtate, and that they are then leſs alarming.

The moſt ſpeedy and effectual means of relief, in the firſt caſes, conſiſt in emptying the veſſels by a bold and plentiful bleeding, opening the belly by repeated laxative glyſters, and afterwards keeping the woman cool and quiet, and confining her to a ſpare diet.

If there are ſymptoms of labour, the membranes ſhould be broken, and the delivery aſſiſted, whenever the circumſtances of the caſe will admit of it.—The relief

of

of the other caſes ſhould be left entirely to the uſual practitioner.

Cramps in the legs, thighs, or belly, are very troubleſome, and are beſt relieved by dry rubbing with flannel, or a fleſh bruſh; or by rubbing on the parts camphorated or anodyne balſam, or by the application of *aether*. They frequently ariſe from the womb conſtantly preſſing on the ſame part. This is the natural effect of confinement and ſedentary life; and, therefore, the uneaſy ſenſation can only be removed, or palliated, by frequent change of poſture and gentle exerciſe. To relieve the complaint, when very troubleſome in the night, and the belly is not bound, opiates may be given freely.

Cholic pains.—Theſe are ſometimes ſo ſevere towards the latter end of geſtation, as to reſemble the throes of labour. When the belly is looſe, there is little hazard, ſmall doſes of rhubarb, and an opiate occaſionally at bed-time, with a proper regulation of the diet, are the moſt effectual remedies,

remedies. The diet ſhould conſiſt of rice, beef-tea with rice, light bread, or rice-pudding, and the like, and milk when it does not diſagree with the ſtomach. Aceſcent and flatulent foods and drink ſhould be avoided. But, in thoſe cholics attended with obſtinate coſtiveneſs, there is always a conſiderable degree of danger. Inflammation affecting the bowels, is rapidly communicated to the neighbouring parts, and the event is often fatal. The cure, in theſe caſes, conſiſts in bleeding, emptying the bowels by repeated laxative glyſters, and afterwards ſtrictly confining the woman to a ſpare cooling diet.

If, along with coſtiveneſs, ſhe ſhould complain of a violent continued fixed pain in the belly, with fever, if ſhe be of a full habit of body, and glyſters give no relief, the event is extremely precarious, and a ſkillful practitioner ought immediately to be had recourſe to.

In ſuch circumſtances, the common, though pernicious cuſtom of giving ſpirits, hot

hot drinks with ſpiceries, and other ſtimulating things, muſt be carefully avoided; for by that means the inflammatory complaints would be hurried on, and the unfortunate termination of the diſeaſe accelerated.

Cough and breathleſſneſs, in advanced geſtation, ariſe from the preſſure of the bulky womb againſt the *diaphragm*, or membranous partition which divides the belly from the cheſt. From this cauſe, the cavity of the cheſt is ſtraitened, the lungs are compreſſed, and the free motion of the blood and air through them interrupted. Such complaints, it is ſufficiently obvious, will only admit of palliation till delivery.

When the belly riſes very high, a gentle preſſure from the ſtomach downwards, by a napkin or roller, may be uſeful. But it is a means of relief that muſt be uſed with great caution; for ſo dreadful are the effects of violent preſſure, or tight lacing, during pregnancy, that it often kills the child, now and then the mother; and, therefore,

therefore, ought to be guarded againſt from the earlieſt months. The woman ſhould be placed in a poſture moſt favourable for the dilatation of the cheſt: Hence in the night, her head and ſhoulders ſhould be raiſed, ſo that ſhe may be between half ſitting and lying. Urgent ſymptoms are to be relieved by frequent ſmall bleedings. The belly muſt always be kept open. The diet ſhould be ſpare; and, when the cough is very frequent, and the breathing uneaſy, bliſters, and the prudent uſe of opiates, will often procure all the temporary relief which the circumſtances of the caſe will admit of.

Difficulty, or incontinency of urine, is occaſioned by the mechanical preſſure of the bulky womb on the bottom or neck of the bladder. When the belly hangs much over the pubes, a gentle preſſure to alter its direction is ſometimes uſeful. Change of poſture is alſo neceſſary. When there is total ſuppreſſion of urine, the catheter muſt be uſed.

Incontinency

Incontinency of urine is inconvenient; it frets and excoriates the parts, and confines the patient from exercise of every kind. It is occasioned either by the continued pressure of the womb on the bladder in certain positions, or proves the consequence of the fits of coughing, in which case, the urine is forced off by starts or dribblings. There is no cure but delivery. An open belly and frequent change of posture are the only palliatives. Thick compresses of soft linen cloths must be applied to the *os externum* to imbibe the moisture. They ought to be retained with a T bandage *, and frequently renewed as they become damp.

III. Besides the complaints now mentioned, others may occur, which, though not immediately produced by pregnancy, are exaggerated,

* The T bandage consists of a strip of linen rag, for putting round the waste, to which another of equal length is to be fixed at the middle, behind, to be brought between the thighs, and fixed to the one before.

aggerated, and, of conſequence, rendered more dangerous by it, and therefore require a particular attention and management. The treatment of theſe is the immediate province of medical practitioners. To their advice early recourſe ought to be had. Nor will any prudent woman hazard her own reputation, where the experience of the moſt eminent of the faculty often proves inſufficient to reſcue the patient from threatning danger.

Flooding, and *abortion* or *miſcarriage*, are neither confined to the early or later months, but from time to time occur in all the different periods of geſtation; the one is a frequent conſequence of the other, and the event of either is precarious. In the early months, when the child has little life, a conſiderable diſcharge of blood often precedes the expulſion of the *foetus*; and, in the later ſtages, the evacuation is often ſo conſiderable as to endanger the mother's life.

No

No abortion can happen without ſome degree of flooding; but every appearance or ſhew of flooding does not infallibly terminate in abortion. To give, therefore, an accurate idea of the ſubjects, they ought to be conſidered in different articles.

Flooding is an evacuation of blood from the *uterus* during pregnancy, confined to no regular or ſtated periods.

The immediate cauſe is, a ſeparation of ſome portion of the external ſurface of the *ovum* from the womb, in the early months, or, in advanced pregnancy, a ſeparation of ſome portion of the *placenta*.

The occaſional cauſes of this ſeparation may, in general, be referred,

1*ſt*, To thoſe that affect the general health, as external accidents, viz. falls, blows, ſtrains.—Or, internal cauſes, which alter the courſe of the circulation, viz. fevers, fullneſs, debility, and every thing which heats or increaſes the circulation of the blood.

2*dly*,

2*dly*, Thoſe that more immediately affect the womb and its contents, as,

Diſeaſes of the womb, *placenta*, or *fœtus*; irritation communicated to the womb from diſtant parts, as violent cough, or vomiting, diſeaſes of the bladder and inteſtines occaſioning ſtraining in making water, or at ſtool, &c.

Floodings are ſeldom attended with danger during the firſt five months; yet every appearance of this kind is to be dreaded; for, in early geſtation, abortion is often the unavoidable conſequence; and after the ſixth month, from the ſize of the womb, and proportional increaſe of the blood-veſſels, the loſs of blood may be ſo great as to endanger not only the life of the child, but of the mother.

When a pregnant woman has been attacked with any degree of flooding, it is difficult to give an immediate check to it, and prevent the threatening conſequences, and ſtill more ſo to guard a-

gainſt

gainſt a ſimilar accident in future. A flooding is liable to recur on the ſlighteſt accident. The leaſt flutter, ſurpriſe, or overheat is apt to induce it; and, in order to prevent its recurrence, the woman muſt ſubject herſelf, during the remaining part of her pregnancy, to the moſt diſagreeable reſtrictions.

How cautious, therefore, ought women to be of their conduct, in carefully guarding againſt thoſe accidents, which not only endanger the loſs of their own life and their offspring, but introduce ſuch a change of conſtitution, as to render the remains of life, however protracted, comfortleſs and unhappy? In early geſtation, when the attachment of the delicate *ovum* to the womb is ſlight and feeble, the moſt trifling circumſtance is ſufficient to deſtroy the connection. The firſt ſlip endangers a ſecond; and, beſides, the loſs of health, which frequently ſucceeds, there is great hazard that the woman will never after be able to go with child to the full period.

If

If the flooding be moderate in quantity, without much pain or bearing down; if what is evacuated be pure red blood; if there be no appearance of clots, or of a watery fluid, or of a fleſhy ſkinny like ſubſtance, the diſcharge may yet, by proper management, be reſtrained, and the woman be enabled to keep her child to the full time. But, in proportion as one or more of the ſymptoms above mentioned occur, there is hazard of abortion.

The management, in caſes of flooding, muſt be varied according to the ſtage of pregnancy, the occaſional cauſe, and the conſtitution or habit of body of the woman.

The diſcharge can only be mitigated by ſuch means as leſſen the heat of the body, and retard the motion of the blood; or, favour the formation of clots, by which the mouths of the veſſels are plugged up.

For this purpoſe, reſt and tranquillity of mind,—cool air,—a light cooling diet,—occaſionally ſmall bloodings at the arm,—the

prudent

prudent uſe of opiates, and,—cold applications to the body, are the chief remedies.

Reſt and tranquillity of mind—are indiſpenſably neceſſary in the floodings of pregnant women. On the earlieſt appearance of that kind, the woman ſhould be put into bed, and confined there till the flooding be entirely removed. She ſhould lie on a hair matraſs, by herſelf, lightly covered with bed-clothes, and the tranquillity of her mind ought to be promoted as much as poſſible.

Cool air—in ſuch circumſtances is of the utmoſt importance; a free circulation ſhould be kept up in the bed-chamber, that the woman may breathe it in full draughts. Nothing will prove more comfortable and refreſhing, or more effectual for removing feveriſh heat, and conſequently for leſſening the motion of the circulating fluid. From expoſure to cold air *alone*, the happieſt effects are often produced, and an immediate check is given to floodings of a moſt alarming nature.

Light

Light cooling diet—In the healthieſt ſtate, the pulſe riſes, and the motion of the blood is ſomewhat augmented after eating: It is alſo well known, that ſome ſubſtances have a greater tendency to heat the body, and bring fluſhings in the face, than others. For theſe reaſons the diet ſhould be ſpare; little food ſhould be given at once; it ought to be of a cooling nature, and meat and drink of every kind ſhould be taken very cold. How improper then and dangerous is the extremely pernicious, though common practice, of giving red wine warmed with ſpiceries, with a view to reſtrain a flooding? From ſuch treatment what can be expected, but that which actually happens? The flooding by that means is kept up, till abortion enſues; and, if it be in the advanced months of geſtation, ſo profuſe a deluge is frequently occaſioned, that the unfortunate woman very quickly ſinks under it.

Bleeding at the arm—Few remedies have been more abuſed, or leſs underſtood than that

that of bleeding. It may be ſafely and advantageouſly practiſed in the beginning, when the pulſe is full and ſtrong, when there is much feveriſh heat, attended with fluſhings, head-ach, or pain in the belly; when the woman is young, ſtrong, and vigorous, and eſpecially when the diſeaſe is the effect of accident. And, at any rate, when the ſpirits are violently agitated, and the conſtitution appears to be full or plethoric.—But it is improper, and ought to be carefully avoided, when much blood has already been diſcharged, when there are evident ſymptoms of approaching miſcarriage, when the woman is low, ſunk, and dejected, and the pulſe ſmall and feeble, however frequent.

Opiates.—have a ſurpriſing power of leſſening nervous irritation, and mitigating pain. Whether they have any particular virtue in reſtraining *hemorrhages*, is doubtful. In floodings, the ſpirits are generally much fluttered, and the whole nervous ſyſtem in great agitation. To procure a

temporary reſt and compoſure is, in ſuch circumſtances, of great conſequence. With theſe views, opium is a valuable medicine, and its good effects, in many inſtances, when given with prudence, may be depended on. But it diſagrees with ſome particular conſtitutions inducing ſickneſs and vomiting, and, in other caſes, it cannot be given with ſafety. Opiates are improper when the habit is full, or fever runs high, till the veſſels be emptied naturally by the flooding, or by bleeding at the arm. Opium, too, binds the belly. Floodings are increaſed or kept up by a coſtive belly; therefore, the inteſtines ſhould be emptied by emollient glyſters. They ſhould be perfectly ſimple, and be adminiſtered in a ſtate not more than milk warm.

Beſides the remedies now mentioned, if the flooding be exceſſive, cold applications to the *pubes*, *os externum*, and loins, may occaſionally be employed: As thick linen compreſſes, the ſize of a common handkerchief,

kerchief, wet with vinegar and water, which ſhould often be renewed, leſt they become warm.

Some practitioners propoſe to ſtuff the *vagina* with lint or tow, ſoaked in any ſtyptic liquor; but it is a method which has no particular advantage to recommend it; and, in the pregnant ſtate, the introduction of ſuch irritating ſubſtances may do hurt.

When the woman is near her time, and every method employed to check the hemorrhage fails, there is no chance of preſerving her life, but by emptying the womb, by a ſpeedy delivery.

The moſt dangerous floodings are thoſe where the after-birth is attached at the neck, or over the mouth of the womb. From the time the neck of the womb begins to ſtretch, or the orifice to open, ſome portion of the *placenta* muſt, in ſuch circumſtances, unavoidably be ſeparated, and a flooding enſue. This caſe is more alarming than any other, and when there is rea-

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ſon to ſuſpect it, the woman ſhould be carefully examined by the touch. The *placenta* will be readily diſcovered by its ſoft pappy feel. Here a few minutes neglect may prove fatal to the unfortunate woman, for her life, and that of her child, depend entirely on a ſpeedy delivery.—How that is to be performed will be explained hereafter.

Of Abortion.

Abortion, or miſcarriage, may be defined 'The premature excluſion of the *ovum* from the *uterus*.' Some ſtill retain the following diſtinction: If miſcarriage ſhould happen in early geſtation, they call it an *abortion;* but if it occurs after the ſeventh month, a period in which the child often lives, they term it *a premature birth.*

The ſymptoms that threaten miſcarriage are,

Flooding.

Pains

Pains in the back and belly.

Bearing down pains, with regular intermiſſions.

The evacuation of the waters.

The ſubſiding of the belly; want of motion, and other ſuſpicious ſigns of the death of the child.

The immediate cauſe of miſcarriage is the ſame with that of true labour, viz. 'A 'contracting effort of the womb, in order 'to expel its contents.' Its more remote cauſes are,

I. Whatever interrupts the regular circulation, 1. Between the womb and *placenta*, 2. Between the *placenta* and child, or, 3. In the body of the child itſelf.

II. Every cauſe which promotes the contraction of the womb.

To the former may be referred,

1. A diſeaſed ſtate of the womb, by which the veſſels may be unfit to tranſmit blood in proper quantity to the *placenta*.

Whatever

Whatever deſtroys the connection of the *ovum*, in early geſtation, or afterwards of the *placenta* with the *uterus*, occaſioning partial or total ſeparation, as already enumerated in the cauſes of flooding.

Diſeaſes in the habit of the mother, and every cauſe which determines the blood to other parts, as profuſe evacuations, &c.

2. Diſeaſes of the *placenta*, as hardneſs or ſcirrhoſity, dropſical ſwellings called *hydatides* or watery bladders, &c. which render it unfit to abſorb and tranſmit the blood to the child.

Diſeaſes of the umbilical chord, as knots, and coils, circumvolutions round the child's body, and preſſure, preventing the courſe of the blood through the veſſels.

3. Original diſeaſes of the *foetus*. Accidents peculiar to itſelf, or communicated from the mother; preſſure of the womb on the child's body, when the water is in ſmall quantity, &c.

II. To

II. To the latter,

Whatever ſtretches the neck of the womb, or produces an irritation on its orifice, as mechanical injury from bruiſes, ſtrokes, &c. Agitation, from violent exerciſe, paſſions of the mind, &c. Exertion, from vomiting, ſtraining at ſtool, &c. Frequent venery,—a common cauſe in early geſtation, when the attachment of the *ovum* to the *uterus* is ſlight*. Painful motion and ſtruggling of the *foetus*,—by all which an impetus, or puſh, being made againſt the orifice of the womb, its contraction will be promoted, and labour-pains brought on.

Abortion may alſo be occaſioned by ſuch cauſes as determine the blood too ſuddenly to the womb or neighbouring parts, as acute fevers, ſhocks from the extremes of unexpected paſſions of fear and anger.

Laſtly, Too great a quantity of water, from its preſſure, may deſtroy the texture of the membranes, which giving way, the liquor *amnii* will be evacuated, and labour ſoon

* See page 100.

ſoon after enſue; or even when there is no great quantity of water, the membranes may want that ſtrength and firmneſs neceſſary to give ſufficient reſiſtence; ſo that from the ſlighteſt accident giving way, labour will, from that cauſe be unexpectedly brought on.

Abortions are ſeldom dangerous in the firſt five months; but a frequent habit of miſcarriage often lays the foundation of diſeaſes, which, by gradually impairing the conſtitution, ſooner or latter terminate fatally.

Falling down of the womb,—*fluor albus*,—frequent or exceſſive floodings,—diſeaſes of the womb,—hyſteric and nervous complaints,—and, in a word, bad health, in the literal ſenſe of the expreſſion, are the common conſequence of frequent miſcarriage.

The appearance of miſcarriages is various. Sometimes the *ovum* comes off entire. Sometimes it breaks, and the ſmall *foetus* is firſt expelled, the bag or *placenta* afterwards. Abortions are generally preceded

ded by ſome degree of flooding. But, in ſome inſtances, labour-pains come on, without any preſaging ſymptom. When preceded by flooding, if the *foetus* ſhould be expelled before the *placenta*, the flooding frequently continues till it be excluded, which, in ſome caſes, is the work of many days. But, when the *ovum* comes off entire, the flooding, for the moſt part, immediately ceaſes.

In early geſtation the ſize of the *ovum* is as follows: ſix weeks after conception, its bulk is nearly equal to a pigeon's egg; in eight weeks, to that of a hen; and in twelve weeks, to that of a gooſe.

Miſcarriage happens much more frequently, from the eighth to the eleventh week, than at any other period of pregnancy, a circumſtance which ſuggeſts a neceſſary caution to women young with child.

When threatening ſymptoms of miſcarriage occur, in order to form a proper judgment, every clot or lump that is

paſſed, ſhould be immediately put into a baſon of cold water, and carefully reſerved for future inſpection.

The Treatment in Caſes of Miſcarriage.

The management muſt be varied according to circumſtances; nor is it poſſible to give more than general directions, where ſo great variety of management is often neceſſary. Abortion, as has been already obſerved, is often preceded by no preſaging ſymptom, till the rupture of the membranes, and the evacuation of the contained fluid, or till pains, regularly bearing down, announce the approaching expulſion of the *foetus*. And the connection between the *foetus* and mother may have been deſtroyed ſome time before any appearance of miſcarriage is obſerved: For inſtance, though, in early geſtation, the woman often miſcarries about the eleventh or twelfth week from conception, the *foetus* had, perhaps, loſt its life at eight weeks. And again, in advanced

ced pregnancy, when, by ſome accident, the child periſhes, perhaps, about the fifth or ſixth month, it will ſtill be retained in the womb, in ſome inſtances, nearly till full time. For theſe reaſons, it is often impoſſible, either to prevent miſcarriage when ſymptoms appear to threaten it, or to guard againſt ſuch accidents in future.

As women who have once aborted are very liable to a recurrence from a ſimilar cauſe, at the ſame particular period, ſuch an accident, in future pregnancies, ſhould, therefore, be guarded againſt with the utmoſt care. On the firſt appearance of threatening ſymptoms, the woman ſhould be confined to bed, and kept quiet till every alarming ſymptom be removed; her diet ſhould be light and cooling; the ſtate of the belly ſhould be attended to. When ſhe is hot and feveriſh, much fluttered, or pained, a little blood may be taken from the arm, and an opiate occaſionally given at bed-time. She ought to be kept very cool and quiet; but, excepting ſo far as it depends

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on theſe and ſuch like precautions, little good is to be expected in the way of treatment.

Manual aid, that is, aſſiſtance by the midwife's hand, is ſeldom required, or can be practiſed with advantage in the firſt five months of pregnancy.

If the *foetus* hath been expelled, and the flooding ſhould ſtill continue, it is probably kept up by the partial ſeparation and adheſion of the *placenta*. In that caſe, if the lower part be detached, and can be readily reached by paſſing a finger within the mouth of the womb, the motion of the finger may promote its contraction; the *placenta* may then be naturally expelled, or the finger may get beyond it, and we may be able to bring it forward. In like manner, when the pains are frequent and grinding, when the woman floods exceſſively, if the finger can only be admitted within the orifice of the womb, it may be gently dilated in the time of a pain, and afterwards, if the finger can be made to paſs

beyon

beyond the bag of the *ovum*, it may be looſened, diſengaged, and ſcooped forwards; if this method ſhould fail, and the *ovum* can only be reached with the finger, its ſtructure may be deſtroyed by thruſting the finger through it, when the contents being evacuated, the *foetus* will be expelled, and what remains will afterwards be caſt off.—But the former method is more eligible, when practicable.

This practice applies chiefly to abortions from the third to the end of the ſixth month; and it is only excuſable in caſes of exceſſive or alarming floodings. Great care muſt be taken not to miſtake the projecting *os uteri* for the conception; ſuch blunders have been committed, and the conſequences proved fatal.

From the length of the neck of the womb, in early pregnancy, the dilatation of its orifice, ſufficient to allow the eſcape of the *ovum*, is often a very tedious and painful proceſs. Glyſters, in ſuch caſes, often

often ſlightly irritate, and promote the expulſion of the conception.

Sometimes when the *placenta* is long retained, after the expulſion of the *foetus*, and lies beyond the reach of the finger to be extracted, in the manner directed, it will ſlough off in putrid pieces, and require a week, ten days, or even longer, before the whole ſubſtance be expelled. It is, then, attended with an extremely offenſive ſmelled putrid diſcharge from the *vagina*; ſometimes inflammation of the womb itſelf, ſometimes of the *vagina*, with mortification, enſue, and there is danger of putrid fever ſupervening, the event of which is generally fatal. An offenſive ſmelled, or putrid diſcharge from the *vagina*, in caſes of abortion, is always to be conſidered as an alarming ſymptom. It more commonly occurs only in fevers, or when the woman is in a bad habit of body. To prevent diſagreeable conſequences, the parts ſhould be kept clean, by frequently injecting into the *vagina* warm water, or decoction

coction of bark, with a ſmall proportion of tincture of myrrh; and the bark ſhould be given in ſubſtance, in large and frequent doſes, as the ſtomach will bear it.

We cannot, in this place, avoid mentioning a circumſtance which ſometimes happens.

In caſes of twins, or triplets, one conception may be interrupted by the growth of another, and the *embryo* or *fœtus* periſhing, its *ovum* may be retained for ſome time afterwards, and then miſcarriage, or the expulſion of that *ovum*, will enſue. The remaining conception may, however, be retained, and the woman, under proper management, be enabled to carry the child till full time.—This ſuggeſts an important caution in thoſe caſes where, though one conception has been expelled, there are ſtill evident ſymptoms of pregnancy, ſuch as, if, in the early months, ſymptoms of breeding, the breaſts not growing flaccid, if in advanced geſtation, the belly

increaſing

increaſing in bulk, with ſenſation of motion, &c.

When the ſtrength is much impaired from miſcarriage, a regimen ſuitably adapted to the circumſtances of the caſe, aſs's milk, exerciſe, change of air and ſcene, ſea-bathing, a courſe of mineral waters, the uſe of the bark, and a variety of management, to be regulated according to the ſituation of the woman, by the uſual practitioner, will be neceſſary.

In order to avoid miſcarriages, we ſhall next ſubjoin ſome RULES and CAUTIONS for the conduct of pregnant women.

WOMEN, when pregnant, ſhould live a regular and temperate life, carefully avoiding whatever is obſerved to diſagree with the ſtomach; they ſhould breathe a free open air; their company ſhould be agreeable and chearful; their exerciſe ſhould be moderate, and adapted to their particular ſituation; they ſhould, eſpecially in the early months, when the connection between

tween the *ovum* and womb is feeble, avoid crowds, confinement, every ſituation which renders them under any diſagreeable reſtriction; agitation of body, from violent or improper exerciſe, as jolting in a carriage, riding on horſeback, dancing, and whatever diſturbs either the body or mind.

Attention to DRESS is not leſs neceſſary, though much neglected. Nothing is more injurious than the very common, but extremely hazardous cuſtom of confining the breaſts, and ſwathing the belly. It injures the child, and depreſſes the nipples, ſo as to render them unfit for their office. Jumps, therefore, ſhould be put on early, and worn conſtantly.

In a ſtate of pregnancy, an open belly is neceſſary and important; it keeps the ſtomach in good order, prevents cholics, and a great many other complaints. The body may, in general, be kept cool, temperate, and open by a proper regulation of the diet. When that fails, magneſia, ſtew-

ed prunes, lenitive electuary, or a laxative pill, may occaſionally be uſed.

In the advanced months of pregnancy, when heavy or unwieldy, troubled with pains, cramps, or ſwelled legs, frequent reſt on a bed or couch, through the day, is abſolutely neceſſary; and, in the night, the poſture of the body ſhould be frequently changed, that the womb may be prevented from conſtantly preſſing on any one part.

When miſcarriage has repeatedly occurred at a particular period, and the child is produced feeble and weakly; when it appears bloated with ſores about the feet, fundament, and private parts; or, when dead children, with their bodies putrid and ſpoiled, are brought forth, the fault is in the conſtitution of the mother. Such accidents can ſeldom be prevented; for the diſorder cannot often be ſuſpected. Both parents ſhould, however, be put under the care of a regular practitioner.

LABOURS.

LABOURS.

Labour is 'the effort of Nature to expel 'the child', but her operations are not always uniform; for, though ſome labours are ſtrictly natural, and require little or no aſſiſtance, others are ſlow and tedious, difficult and laborious; they require ſkill and attention, and ſometimes the moſt active efforts to preſerve either the mother or child.

Labours, therefore, are of three kinds,

NATURAL, LABORIOUS, and PRETERNATURAL.

I. In whatever manner the head of the child preſents, when the delivery, at full time, is performed by nature, and every thing goes favourably on, the labour is, with great propriety, called *natural*.

II. When

II. When the birth is protracted beyond the uſual time, or cannot be accompliſhed without extraordinary aſſiſtance, it is termed *laborious*: And,

III. *Preternatural*, when, in whatever manner the child preſents, the head is the laſt part of the delivery.

I. *Natural Labour.*

When the womb is increaſed to the utmoſt degree of diſtention of which it is capable; or, when the neck is entirely obliterated, and the orifice begins to open, the womb will contract, and labour enſue.

The pains are at firſt ſlight and tranſitory; they ſoon, however, become more conſtant, and increaſe in force. They begin about the ſmall of the back or loins, and ſtrike forward towards the *pubes*, and down the thighs. They return at pretty regular intervals. The woman is, at firſt, cold,

cold, or affected with ſhiverings; but theſe are ſoon ſucceeded with hot fits, and fluſhings in time of the pain. On touching, a copious diſcharge is ſoon perceived to come from the *vagina*; it is ſometimes tinged with blood, and is then called the *red ſhews*. The mouth of the womb gradually opens, and can be felt to dilate in time of a pain. The waters are collected, and protrude the membranes in the form of a bladder, which expanding more and more by the repeated force of the labour-pains, the orifice of the womb, at laſt, becomes completely dilated, the membranous bag gives way, the water is evacuated, which lubricating the paſſages, the child advances, and by the aſtoniſhing expulſive force of the womb, aſſiſted by the midriff and muſcles of the belly, is thus uſhered into the world.

Spurious, or falſe pains, frequently occur towards the latter end of geſtation. They ought to be carefully diſtinguiſhed from thoſe of genuine labour, both on account of

of the patient and practitioner, that the health of the former may not ſuffer from being prematurely put on labour, or the patience of the latter be tired out by unneceſſary watching.

Spurious pains are generally occaſioned by the ſtretching of the womb, and its preſſure on the neighbouring parts, or by coſtiveneſs. They are moſt troubleſome in the evening after the fatigue of the day; they frequently encreaſe in the night; they are more trifling and irregular than true pains; they produce no change on the mouth of the womb, and are attended with no encreaſed diſcharge from the parts. They are often, however, a prelude to approaching labour, which in many women is announced by the following ſymptoms: 1*ſt*, The ſubſiding of the belly, that is, a conſiderable diminution of its bulk. 2*dly*, A diſcharge of *mucus* from the vagina, ſometimes tinged with blood. 3*dly*, Incontinency, frequent deſire, or ſuppreſſion of urine. 4*thly*, *Teneſmus*, or cholic, pains about

about the loins and pubes. *Laſtly*, Extreme inquietude and reſtleſſneſs, with hot and cold fits, when every ſituation is alike irkſome and inſupportable; for the woman can neither ſit nor ſtand, walk nor reſt in bed, for any conſiderable time.

The event of labours is ſo precarious, that no certain judgment of their manner of termination can be formed, almoſt from any ſymptoms, till the progreſs be conſiderably advanced. We are chiefly to judge from the force, duration, and recurrence of the pains; from their effect in dilating the mouth of the womb; from the time of rupture of the membranes; from the conſtruction of the pelvis, and the bulk and poſition of the child's head. The labour promiſes to be natural and eaſy when the woman is healthy and not advanced in years; when the pains come on regularly; when the child, at full time, preſents properly; when the head is of a moderate ſize, and the parts of the mother are ſuitably proportioned. The firſt labour, for obvious

obvious reaſons, is generally the moſt tedious. It is worth remarking, that labour pains often continue from ſix to twelve, eighteen, or twenty-four hours, that is, if the woman be not delivered in ſix hours, the labour will, perhaps, be protracted for ſix hours more; if not in twelve, ſhe will then go on nearly to the end of the 18th hour, or to the 24th; and every ſix hours of pain generally alternate more or leſs with intervals of eaſe. The nature and duration of labour is, however, ſo precarious, and liable to ſo much variety, even in the ſame perſon, that we ought to be cautious in giving any opinion.

The management of women during labour has been much influenced by faſhion and caprice in all ages. It is needleſs to recite the different methods ſtill practiced in different countries. The great object is to guard againſt cold and fatigue, to reſerve the woman's ſtrength, and ſupport her ſpirits as much as poſſible, and to give

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all the indulgence which her critical ſituation ſtands in need of.

Preparatory to delivery, the make of the bed, and her own dreſs, ought to be adjuſted.

The beſt ſituation for the bed is, to place it in the room, at a proper diſtance from the wall; not in a direct line between the door and chimney, if it can be eaſily avoided, but in ſuch a ſituation that the room may be ventilated, without the air ruſhing on the woman in a ſtream. The curtains ſhould conſiſt of thin linen, or linen and cotton; they ſhould be kept as clean as poſſible, and ſome portion always left open to admit the freſh air, and allow the eſcape of that which is foul.

A hair mattreſs ſhould be placed above the feather-bed; over the mattreſs a dried ſkin, or piece of oiled cloth ought to be laid; above it a pair of clean ſheets is to be ſpread in the ordinary way, over which another pair of ſheets muſt be applied acroſs the bed, folded lengthwiſe, in form of a roller, with their ends tucked in at the

ſides of the bed; and an old blanket and ſheet are to be folded in a ſquare form, and put under the woman's breech, that, on removing them after delivery, the bed may be dry. The whole may be ſecured from ſliding by means of a needle and thread.

The under ſheet at the fore ſide of the bed ſhould be preſſed in; and the upper ſheet, when turned over the bed-clothes and outer covering, and ſecured by means of a needle and thread, will be a proper direction for the hand of the operator.

The dreſs of the woman is chiefly confined to a half ſhift, linen ſkirt, and light bed-gown.

The *poſition for delivery* need not be peculiar, till the mouth of the womb be pretty much dilated; ſhe may then be laid in bed, on her back, her head and ſhoulders being raiſed by pillows, and her knees drawn up to her belly; or, what is preferable, ſhe may be laid upon her left ſide, with her breech brought forward towards the edge of the bed,

bed, her head a little obliquely to the oppoſite ſide, and her knees kept ſeparate, by placing a folded pillow between them. But, when the labour turns out tedious, ſhe ought not to be confined, very long, in any poſture.

Some prefer being delivered on a couch, or ſmall bed, which, moving by caſtors, can afterwards be brought cloſe to the other bed, where every thing is ready prepared for the woman's reception after delivery.

The dilatation of the parts, which is the *Firſt ſtage of labour*, ſhould be truſted to Nature, except when floodings are dangerous. It is neceſſary, however, to examine, by the touch, to obtain information, *1ſt*, Whether the pains be genuine; *2dly*, What kind of labour it is; *3dly*, How the parts are formed. And, it is neceſſary to repeat the examination from time to time, to obſerve the progreſs of the labour. But this muſt be regulated by the particular circumſtances

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of the caſe. In the beginning, the woman ſhould be ſeldom touched. It ought to be done with delicacy and gentleneſs, inſinuating the fore-finger of the right hand, well lubricated with pomatum or butter, into the *vagina* in time of a pain, and cautiouſly carrying it, firſt backward towards the *ſacrum*, to feel for the orifice of the womb, and then upward and forwards, towards the *pubes*, to learn how the child preſents. If the finger can be admitted for ſome way within the orifice, and if it appears thin, ſoft, open, and dilatable, and any part of the membranes, or of the child's head through them, can be perceived, eſpecially if the orifice be obſerved to dilate in time of the pain, and the membranes, or child's head, to puſh downwards, the pains are *genuine*, and labour is actually commenced. But if the orifice of the womb be, with difficulty, reached; if it be hard, and ſtill retains ſomething of the figure of a tubercle or nipple, or, though it ſhould be ſo open as to admit the finger, if the opening be continued

tinued only for a little way, and neither any part of the membranes or child can be diſcerned through the orifice, the pains are *ſpurious*.

If the pains come on ſlowly, and while they recur at diſtant intervals, there is little neceſſity for repeating the touch. The parts are, at firſt, narrow and contracted; there is little ſecretion of moiſture; the mouth of the womb is at a conſiderable diſtance, often cannot be come at by a practitioner of experience; and frequent touching, according to the rude practice of thoſe who are ignorant of the ſtructure of the parts, readily brings on ſwelling and inflammation, which, if the labour ſhould be ſlow, may be attended with moſt diſagreeable conſequences.

There is little occaſion for repeating the touch, till the pains become ſtrong and frequent, and the membranes puſh down, or protrude, in the form of a bladder.

With regard to actual aſſiſtance, little ought to be done, but to apply a warm cloth

cloth to the *os externum*, till the *firſt ſtage* be accompliſhed, or till the membranous bag ſpread out at the *os externum*, or the waters be evacuated, and the head of the child be advanced at the bottom of the *pelvis*, ſo low as to preſs againſt the *perinaeum*.

In time of labour the woman ſhould be kept very cool. If there be time for it, the inteſtines ſhould always be emptied by giving a ſimple glyſter, and repeating it as often as may be neceſſary. As few aſſiſtants as poſſible ought to be near her, that ſhe may not be diſturbed with their noiſe, or over-heated by crowding about her. When the mouth of the womb is opened about the breadth of half a crown, ſhe may be put in the proper ſituation for delivery; and her hands and feet ſupported, during pains, by ſomething againſt which ſhe may reſt. Her back, when uneaſy, ſhould alſo be ſupported, either with a bolſter or pillow, or by preſſing with the hand of an aſſiſtant. All efforts to preſs down, except thoſe of nature, ought to be diſcouraged.

And

And the membranes muſt be carefully preſerved till they ſpread out like a bag or bladder, and protrude at the *os externum*; for they gently ſtretch and moiſten the parts in a manner which *we* cannot imitate. And, if the waters eſcape too ſoon, the paſſages become dry, and the labour painful and tedious.

When the mouth of the womb is ſo much enlarged, that no part of the orifice can be felt, the ſoft parts are ſufficiently dilated. This completes the firſt ſtage of labour; and, in a natural eaſy delivery, under proper management, it is generally accompliſhed in about eight, ten, or twelve hours.

Stage ſecond. When the membranes continue entire till they protrude at the *os externum*, and the mouth of the womb is ſo much dilated, that no part of the orifice can be felt, the head of the child deſcends into the hollow of the *ſacrum*, often by the force of the next pain, and the birth quickly follows. Some women have one continued bearing down pain, from the burſting

ing of the waters, till the child be completely delivered. Others have a remiſſion of pain for ſome time after; and ſome incline to ſleep for ſeveral hours, till awakened by the return of pains; but, in general, if the parts be properly prepared for the paſſage of the child, and if no obſtacle prevents, by a few ſtrong pains, the child is introduced into the world.

Therefore, when the firſt ſtage of labour is nearly accompliſhed, the midwife ought to watch with unremitting attention, and ſhould examine in time of every pain, ſince it may *then* be done without any inconvenience to the woman. An attentive practitioner will readily obſerve the progreſſive advance of the child, by the force and violence of the pains, which frequently occaſion an univerſal trembling or ſhivering, from the irritation of the child's head on theſe nervous parts, ſo that the woman can ſcarcely refrain from crying out. We are alſo aſſured that the head quickly advances, by its preſſure againſt the bottom of the *pelvis*;

pelvis; for the *perinaeum* begins to ſtretch, the fundament to be dilated, and the top of the child's head to protrude a little through the external orifice.

The parts are then ſo violently overſtretched, that, if the *pelvis* be well proportioned, and the pains ſtrong and forcing, the head of the child may be propelled ſo ſuddenly as to tear the whole of the *perinaeum*, if the proper aſſiſtance ſhould be neglected. Inſtances have actually happened, in which, from neglect of the neceſſary ſupport, the child has been born through the *fundament*.

The management at this time is the moſt important part of the midwife's taſk, and muſt be attended to with the ſtricteſt care. From the time that the head begins to bear upon the ſoft parts at the bottom of the *pelvis*, a little butter or pomatum may be gently rubbed on the *perinaeum* and *labia*, and occaſionally repeated, as the drineſs or rigidity of the parts require.

When the *perinaeum* begins to ſwell, it muſt be firmly ſupported by the palm of the hand, to preſs againſt it in time of a pain. For this purpoſe, the hand ſhould be applied in ſuch a manner, as not only to give a ſuitable ſupport to the *perinaeum*, but, as the head advances, to regulate its progreſs, by preſſing the *perinaeum*, as it were, backwards, in a direction towards the *coccyx*.

In a firſt labour, when the pains are ſtrong and forcing, and the parts moiſt and ſlippery, the hand, alone, is often inſufficient to prevent the hazard of laceration; a cloth ſmoothly folded, like a thick compreſs, and large enough to cover the whole *perinaeum* and *fundament*, ſhould therefore be employed. By this means the miſerable conſequences will be prevented, to which the neglect of this preſſure may expoſe the woman. For, by this ſupport, the overſtretching of the *perinaeum* will be leſſened, the ſenſibility of the parts diminiſhed, the paſſages gradually opened, and the head of the

the child will advance through the *vagina*, in a ſafe, ſlow, and gentle manner. The only caution neceſſary to be here obſerved is, to avoid preſſing too early or violently; for, in a firſt labour, or when the parts are very dry and rigid, the ſtretching of the *perinæum* may be the work of ſeveral hours; but, in thoſe who are in the frequent habit of bearing children, and who have generally eaſy labours, it is often accompliſhed by a few pains.

When the head is completely protruded through the external orifice, the *perinæum* muſt be releaſed, by cautiouſly ſliding it back over the face and chin of the child, and this ought to be further enſured by paſſing a finger below the chin, and ſo moving it round and round. After a pain or two, the ſhoulders and body will follow, nothing more, for the moſt part being neceſſary, but to ſupport the child, by applying the hands at either ſide of the head, while it is gradually puſhed forward by the expulſive force of the natural pains.

Though

Though five minutes, or more, ſhould be requiſite for the delivery of the body, after the head is protruded, no matter; the child ſeldom ſuffers from the delay. The ſhoulders generally accommodate themſelves to the ſhape of the baſin, and turn towards the *pubes* and *ſacrum*, when the delivery is truſted to nature; whereas, if art interpoſes, the extraction is made with difficulty, and the mother, as well as the child, in ſome degree ſuffer.

As the ſhoulders advance, the midwife muſt gently ſhift her hands, lay hold of the child's body, and draw it forwards, in a direction towards the *perinaeum*. After the ſhoulders paſs, the reſt of the body ſlides out eaſily.

The child being delivered, and laid on its ſide, with its back to the mother, at a little diſtance from her, to prevent any accident from a guſh of blood, water, &c. getting into its mouth, a ſoft, warm, cloth ſhould then be applied over the *pubes* and *os externum* of the mother.

When

When the child has cried, breathed freely, or otherwiſe diſcovered ſigns of life, the navel-ſtring ſhould be tied and divided, the infant wrapped in a warm ſhirt, or receiver, and given to the nurſe or aſſiſtant.

The beſt ligature for tying the navel-ſtring, is narrow tape, or knitten. Small cord, or thread, rather cuts than ſecures the veſſels, and threads of worſted, very commonly uſed, often ſeparate. A tape of five or ſix inches long ſhould be applied about three fingers breadth from the belly of the child, twiſted round and tied leiſurely, in two or three knots; the navel-ſtring ſhould afterwards be cut at a little diſtance from the ligature, leſt the knot ſhould ſlip. The ligature ſhould be tight, and, if done in the dark, care muſt be taken not to wound the child when the ſtring is cut.

The delivery of the child, after the paſſages are dilated, is the *ſecond ſtage* of labour.

The

The third is, the Birth of the Placenta.

Nature, generally, does the buſineſs by the ſpontaneous contraction of the *uterus*; for, in proportion as it diminiſhes in ſize, the after-birth is gradually diſengaged, forced down lower and lower, and, at laſt, entirely expelled.

Immediately after the child is born and removed, the midwife ſhould ſteal her hand under the bed-clothes, and preſs gently on the woman's belly; by this means the contraction of the womb will be promoted, the midwife will become acquainted with its manner of contraction, readily diſcern when there is any other child, and learn the proper time of aſſiſting the birth of the afterburthen.

When the bulk of the belly is conſiderably leſſened; when the contracting womb has ſhifted its poſition, and can be perceived like a hard round ball at, or below the navel; or, when the woman complains of a grinding

grinding or griping pain, *then* is the time to give aſſiſtance. In moſt caſes, this happens from ten minutes to half an hour after the delivery of the child. The *placenta* adheres moſt firmly in premature births, when the woman has been in bad health during pregnancy; in lingering or difficult births; or when haſty attempts are made to extract it. It is moſt eaſily and quickly ſeparated in a firſt birth, when the woman is in good health, and when the labour has been properly managed.

The method of aſſiſting the ſeparation and expulſion, is to take hold of the *umbilical chord*, twiſt it, firſt round two fingers, then over the whole fingers of the left hand, cloſe to the *os externum*, pulling gently from ſide to ſide, and backwards towards the *perinaeum*, taking the advantage of a pain, if it comes, and deſiring the woman to preſs down moderately; but all violent exertions ſhould be avoided; for, by coughing, reching, ſneezing, &c. dangerous floodings may be brought on. We know it advances

advances by the lengthening of the chord, and the bearing down or ſtraining of the woman. When the broad bulky part of the cake comes to the *os uteri*, it generally ſtops, and often meets with conſiderable reſiſtance. This may be removed by preſſing a finger or two of the right hand, guided by the chord, within the orifice of the womb, till the thick central part of the *placenta* be felt, from which the fingers muſt be made to paſs till they reach the edge; or by giving a little time, pulling gently at the chord with the left hand, and preſſing on the body of the *placenta* in a proper direction, with the fingers of the right, the edge can generally be brought down, which muſt be graſped firmly in the hand, and the whole cautiouſly extracted, put in a cloth or baſon, and removed.

Nature, however, is not infallible in her operations, nor can the *placenta* always be extracted by pulling at the chord.

It is, therefore, neceſſary, on ſeveral occaſions, to introduce the hand into the *uterus*

rus to remove the *placenta*, as for example:

1*ſt*, In caſes of flooding.

2*dly*, When the chord is torn from the cake; or,

3*dly*, When it is retained beyond the uſual time, either by the contraction of the womb; or,

4*thly*, By the uncommon adheſion of the cake.

1*ſt*, *Flooding*.—Here there is a partial detachment, and, if the *uterus* be not emptied of its contents, by which only it can be put in a condition to contract, and ſtop the bleeding from the veſſels, the diſcharge will be dangerous and fatal; therefore, when the woman floods, the *placenta* ought *immediately* to be removed. The hand of the operator ſhould be gradually, but with a certain degree of courage and reſolution, introduced into the *uterus*, taking the navel-ſtring for a guide, and gathering the fingers together in a conical manner. If the *placenta* ſeems attached to the oppoſite ſide, the hand already introduced muſt be

withdrawn, and the other paſſed in its ſtead; or if, from its adheſion towards the upper part of the womb, it appears to be without the reach of the hand, the poſition of the woman muſt be altered, and ſhe muſt be ſhifted from one ſide to the other, from the ſide to the back, croſs the bed, or placed on her knees and elbows, according to the particular circumſtances of the caſe.

The *placenta* can be readily diſtinguiſhed from looſe clots of blood, by its firmneſs, and, from the womb, by its ſoftneſs and want of feeling; for the *placenta* has no nerves. It may be diſengaged by inſinuating the fingers between it and the womb, through the membranes, when the ſeparated edge of the cake can eaſily be come at. If it cannot, the thick middle part of the placentary maſs ſhould be graſped firmly, ſpreading out the fingers, and gathering them together upon it; and, in that manner, gradually endeavouring to diſengage and bring it away. It is dangerous to ſtrip, or peel it from the womb, by placing

cing the fingers on the outſide of the membranes, as many adviſe; for, by that means, where the womb has loſt its contractile power, a fatal deluge may enſue.

2dly, When the chord is torn or putrid,

Nearly the ſame method ſhould be followed, only allowing a longer time for the contraction of the womb. By ſuch prudent conduct, little will probably be left for art to perform.

When there is no rope left for a direction, the hand muſt be ſlowly paſſed into the *uterus*, and the ragged membranes round the edge of the *placenta* ſearched for; if it cannot be brought by the edge, let the hand be conveyed from the edge to the thick puckered centre, and, by ſpreading out the fingers, then bringing them together, ſo as to graſp the *placenta* in the palm of the hand, and repeating the ſame again and again, the ſeparation of the whole ſubſtance of the cake being accompliſhed, let it be brought down and removed.

3dly,

3dly, Retention of the after-birth, by the unequal contraction of the womb.

The mouth of the womb may be too much contracted, or the cavity of the womb may be contracted in the middle, like a ſand-glaſs, and retain the cake.

Having waited a conſiderable time, and repeatedly failed in attempting in the ordinary way to extract it, let the hand be introduced, in a conical manner, within the *uterus*, and having gradually overcome the reſiſtance, let the *placenta* be carefully ſeparated and extracted.

If inſurmountable difficulties occur to prevent the hand from reaching the *placenta*, and the contraction cannot be overcome in the common manner, the hand ſhould be withdrawn, the belly fomented, and thirty or thirty-five drops of laudanum given. When the woman has reſted for ſome time, ſeveral hours, perhaps, (which ſhe may ſafely be allowed to do, if ſhe does not flood), is compoſed, begins to be drowſy, or affected with after-pains, the hand will

will then readily obtain admittance, and the extraction be ſafely accompliſhed.

Laſtly, Retention from the uncommon adheſion of the cake.

When the *placenta* is diſeaſed, the cake, in ſome inſtances, ſeems to grow to the womb like moſs to a rock. This, however, ſeldom occurs; but, in that caſe, force muſt never be uſed, for we may tear the womb, and, at leaſt, bring on inflammation and mortifications. We muſt attentively examine the cake, and, if there is any portion looſe, muſt endeavour to bring it away; the reſt muſt be left to Nature to be expelled with the cleanſings, or by means of ſuppuration.

Adheſions of the *placenta*, from diſeaſed *ſcirrhoſity*, always threaten ſome degree of danger; for, though what adheres ſlightly be detached from that portion in contact with the *uterus*, with the utmoſt poſſible caution and dexterity, and with all the expedition the circumſtances of the caſe will admit; yet, before that proceſs be accompliſhed,

pliſhed, from the vaſt deſtruction of blood-veſſels, a fatal deluge may enſue. Where the event is ſo precarious, we ought to be cautious in giving an opinion.

Female practitioners, unleſs the woman be in danger from flooding, ought, in all caſes of difficulty and danger, to avoid combating with obſtacles inſurmountable by ordinary means, and ſhould, without a moment's delay, call in an experienced ſurgeon.

Upon the whole, it may be obſerved, that it is alike hazardous to interrupt or counteract Nature in her efforts, or to neglect the proper and critical time of giving aſſiſtance.

The raſh and indiſcriminate practice of precipitating the extraction of the after-birth, has been fatal to many thouſands. An error ſo dangerous ſhould, therefore, be guarded againſt with the utmoſt care. By employing ſudden or violent efforts to bring it away, by pulling at the chord, profuſe floodings, laceration, or inverſion of the womb,

womb, and afterwards incurable *prolapſus*, with their conſequences, may be occaſioned. I have known many melancholy inſtances of ſuch miſconduct.—The ſcenes that followed are too tragic to be related; nor could the addreſs of the moſt ſkillful of the profeſſion prevent the fatal event that ſoon enſued.

On the contrary, if the *placenta*, either wholly, or in greateſt part, be retained, and nature ſhould fail to expel it, unleſs it be removed by art, the conſequences will be fatal. For, in that ſtate, without circulation, it will, in a few days, become putrid; the putrefactive proceſs, continually augmented by the ſtagnation of the lochial blood, will be readily communicated, firſt to thoſe parts in immediate contact, as the *womb* and *vagina*; from whence inflammation and mortification will be produced; afterwards, from the abſorption of putrid matter, the maſs of blood will be affected; hence the moſt malignant ſpecies of childbed-fever will ſupervene, and death at laſt cloſe the ſcene.

It

It ought, therefore, to be a rule with every practitioner, who regards her own character, and the important life of the patient, never to take her leave till the woman be delivered of the after-birth, and composed for rest.

II. *Laborious Labours,*

Which make the 2d class, are,

1. Tedious or lingering.
2. Difficult or laborious.

1. *Lingering Labours.*

From the impatience and anxiety of the labouring woman, or the ignorance and officiousness of those about her, lingering labours prove more troublesome and distressing to the patient, and more perplexing and vexatious to the practitioner than any other. They occur very frequently, and

and require ſkill, addreſs, and the moſt indefatigable patience in the management.

Labour may be protracted, or the labour-pains interrupted by obſtacles ariſing from,

I. The mother.

II. The child, or,

III. The membranes, water, chord, or *placenta*.

I. In the mother, tedious labours may proceed from,

1. General complaints, as
   Cholic,
   Nauſeating ſickneſs, or vomiting,
   Flooding,
   Cramps,
   Lowneſs and faintneſs,
   Convulſions.
   Feveriſh indiſpoſition
   From Inflammatory fullneſs,
   Hectic, or conſumptive habit,
   Paſſions of the mind,
   Improper treatment.

II. Local complaints in the parts, and their neighbourhood, as,
Narrowneſs of the *pelvis*,
Thickneſs and rigidity of the mouth of the womb,
Drineſs and contraction of the *vagina*.
A diſeaſed ſtate of the parts from
Swellings or ulceration,
Prolapſus of the womb, *vagina*, or ſtrait gut,
Stone in the *urethra*,
A collection of dried excrement in the *rectum*.

1. *General Complaints.*

Cholic.—Pregnant women, from the preſſure of the bulky womb, and other cauſes formerly mentioned, are ſubject to coſtiveneſs; and, particularly towards the latter end of geſtation, the pains occaſioned from it are, often, ſo diſtreſſing as to reſemble real labour. Many women have ſevere attacks of cholic immediately previous

vious to labour; the reaſon of which is ſufficiently obvious. The belly, which formerly roſe ſo high that the *fundus* of the womb preſſed againſt the pit of the ſtomach, afterwards ſubſiding, by the child ſinking to the lower part of the womb, and the oval of the head being applied to the oval of the baſin, the contents of the inteſtines will be forced lower and lower, and the ſtrait gut be diſtended. Hence cholic pains, irritation and uneaſineſs, a frequent deſire to go to ſtool, or frequent looſe ſtools, generally enſue. The beſt palliative remedy is, to inject emollient glyſters repeatedly till the bowels be entirely emptied. Although ſome degree of purging ſhould attend the *teneſmus*, it will be neceſſary to waſh the ſtrait gut, by the uſe of one or more warm water glyſters. The irritating cauſe being, in this way, removed, an opiate, if no inflammatory heat or fever prevents, may be afterwards given with advantage.

Nauſeating

Nauſeating Sickneſs, with Vomiting.—When theſe ſymptoms occur, warm water or chamomile tea ſhould be drank freely. Sickneſs and vomiting in ſome degree happen in the eaſieſt labours. Sometimes they proceed from a diſordered ſtate of the ſtomach; but, in general, are to be accounted for from the well known ſympathy of the womb with the ſtomach, and accompany the ſtretching of the *os uteri* only.

Flooding—in advanced geſtation is always an alarming ſymptom; but, if labour be commenced, the danger is leſs; for, as the pains increaſe, the bleeding generally abates; if it ſhould not, the contraction of the womb may be promoted by breaking the membranes, when the orifice of the womb is dilated about the breadth of a half crown piece. This expedient ſeldom fails to give an immediate check to the flooding. When any appearance of flooding occurs, the woman muſt be kept very cool, and an opiate may occaſionally be given to remove pain or uneaſineſs. She ought to be encouraged with the beſt aſſurance of a happy

happy delivery, and the natural pains ſhould be waited for. But, if the diſcharge of blood proceeds from the ſeparation of part of the *placenta* attached to the neck, or over the orifice of the womb, which may readily be known by a careful examination by the touch, it is an alarming circumſtance; in that unhappy ſituation, the flooding will increaſe with labour-pains; for, in the ſame proportion as the mouth of the womb dilates, the after-birth will be more and more detached, and may be entirely diſengaged before the orifice of the womb be ſufficiently opened to allow the child to paſs. In a ſituation ſo critical and alarming, the earlieſt aſſiſtance of a ſkilful practitioner ſhould be procured; for there is no other method of preſerving the woman and child, but by an expeditious delivery *.

Cramps

* See this important ſubject farther explained in the 3d general cauſe of laborious labours, under the article *Improper attachment of the Placenta*; and in claſs 4th of preternatural labours, under *Method of delivery in turning caſes*.

Cramps—in the thighs, legs, more rarely in the belly, are very troubleſome to ſome women. They proceed, chiefly, from the preſſure of the head of the child on ſome particular nerves in the *pelvis*, and can only be removed by delivery. But, as theſe pains, however ſevere, are never dangerous, it is not adviſeable to force the delivery, in any other manner than by breaking the membranes, when readily within reach.

Opiates ſometimes give relief.

Lowneſs and faintneſs—happen chiefly to women of weak nerves, or thoſe whoſe health is impaired by former ſickneſs, or by miſmanagement. They accompany the firſt part of labour only; but, when the ſtrong pains come on, the woman recovers her ſpirits, and acquires vigour and reſolution.

If lowneſs, dejection, and debility occur, from whatever cauſe, the chief object to be aimed at is, to regulate the management in ſuch a manner, that the woman's ſtrength may be ſupported, and her ſpirits kept up.

She

She muſt not be put on labour too early; ſhe muſt avoid heat, fatigue, and every means of exhauſting her bodily ſtrength or ſpirits. If the pains be trifling, or without effect, if ſhe be reſtleſs, anxious, and diſpirited, opiates are particularly indicated. They remove ſpurious or grinding pains, procure reſt, and amuſe her during the tedious and painful time. Little elſe, for the moſt part, is to be done. If the *uterus* once begins to dilate, though the progreſs goes on ſlowly, it is by much the beſt, and ſafeſt practice, to truſt chiefly to a proper regulation of management. The pains, at laſt, will become ſtrong and forcing; and the delivery, even where the woman has been very weak, will often have a ſafe and happy termination.

Convulſions—often occur during labour to thoſe who were ſubject to them while pregnant, and, in ſome inſtances, they are fore-runners of labour itſelf. They may ariſe from fullneſs, when the woman has been over-heated by ſtimulating food and drink,

drink, confined air, or other miſmanagement; or they may proceed from irritation, by the ſtretching of the mouth of the womb, or the contraction of the womb itſelf to expel the child; for ſometimes, though rarely, the womb burſts, from the violence of the labour throes, and the child eſcapes into the cavity of the belly.

When the fits are ſlight, of ſhort duration, recur at diſtant periods, and the woman is ſenſible during the interval, there is leſs danger. But, when they come on ſuddenly, when the face is frightfully diſtorted with foamings, &c. when the fit continues long, or recurs often, leaving a total ſtupor behind, the moſt unhappy event is to be dreaded.

Sometimes the child is thrown off in time of the fits; and, in ſome inſtances, a ſingle fit or two prove mortal.

Bleeding, laxative glyſters, and cool air, are the chief remedies. When it can eaſily be done, delivery ſhould be aſſiſted, and

and the earlieſt recourſe ſhould be had to the aſſiſtance of a ſkillful ſurgeon.

Feveriſh indiſpoſition from fullneſs.—Fever always retards labour from the debility which conſtantly attends it. In robuſt young women, the muſcular parts are tenſe and rigid, and the paſſages ſtretch ſlowly. Bleeding, an open belly, cool air, and a cooling regimen are, in ſuch circumſtances, abſolutely neceſſary. If they be neglected, dreadful convulſions may enſue; or a fever begun with labour, may afterwards end fatally.

Hectic or conſumptive habit—It is a melancholy ſcene to attend a labouring woman in this ſtate. The pains are weak and trifling; ſhe cannot force much down; ſhe is feeble, and liable to faint when the pain goes off. But, however apparently exhauſted, the progreſs of labour goes on, in moſt caſes, much better than could well be expected. The orifice of the womb gives little reſiſtance to the force of the pains, weak and trifling as they are; the

parts are ſoft and lax, and ſoon ſtretch in ſuch a manner, that, if there be no fault in the *pelvis*, the child readily obtains a paſſage.

Here little is to be done, but ſupplying the patient, from time to time, with light nouriſhment; with cordials that do not heat; and keeping up a free circulation of cool air all around her; for this purpoſe the bed-curtains ſhould be quite drawn aſide, doors and windows widely opened, and ſhe ſhould be placed in a poſition, with her head and breaſt well raiſed, that an eaſy reſpiration my be promoted.

Hectic women, under proper management, rarely ſink immediately after delivery; they generally ſurvive a week or longer, though they ſeldom out-live the month.

Paſſions of the mind.—Any piece of news, in which the woman, her family, or relations, are intereſted, whether good or bad, ſhould be carefully concealed, and every circumſtance that tends, in general,

to

to affect the paſſions; as labour may not only, by that means, be interrupted, but the moſt dangerous ſymptoms, as floodings, convulſions, faintings, and death itſelf prove the conſequence.

Improper treatment.—Fever and exceſſive debility are often occaſioned from miſmanagement, the effects of which, by exhauſting the ſtrength, and weakening the force of the pains, are ſufficiently obvious.

It is of great conſequence, and the advice cannot be too much inculcated, to avoid exhauſting the woman's ſtrength in the beginning. If ſhe conſiders herſelf in labour from the earlieſt appearance of thoſe grinding pains, which often precede genuine labour, for ſeveral days, ſhe will be juſtly alarmed at the ſlow progreſs, and frightened at the length of time which ſtill remains. Impatience, anxiety, and deſpondency will at laſt ſucceed, till her ſtrength and ſpirits be nearly exhauſted *.

On

* See the article Lowneſs and Faintneſs, pag. 198.

On the part of the mother, the progreſs of labour may alſo be prevented, by

2dly, Local Complaints in the Parts and their Neighbourhood; as,

Narrowneſs or diſtortion of the Bones of the pelvis.—Where there is any material defect in this cavity, a proper knowledge of the conformation and ſtructure of the parts will enable the practitioner to judge. If, from the figure or appearance of the woman's body, there is reaſon to ſuſpect a faulty *pelvis;* if the ſpine be twiſted, the legs crooked, the breaſt-bone raiſed, or the cheſt narrow; whether the *pelvis* be affected or not, ſhe will require a particular management; for the conſtitution of ſuch women is generally weak and feeble, and they cannot be much confined to bed, on account of their breathing. Therefore, recourſe ſhould ſoon be had to the advice of a regular practitioner.

The

The *pelvis*, (as particularly explained under the article of *Diſtorted Pelvis*) may be faulty at the brim, bottom, or in the cavity or capacity. The firſt of theſe, which occurs oftener than any other, is moſt difficult to diſcover.

The ſecond can be readily perceived by the touch; for we can feel the defects in the ſhape of the *ſacrum* and *coccyx*, in the poſition of the *iſchia*, and in the bending of the *pubes*; and, where the diſtortion is ſo general, that the whole cavity of the *pelvis* is affected, the ſhape of the woman's body, the ſlow progreſs of the labour, and the ſtate of the parts to the touch, will afford ſufficient information.

In the firſt caſe, we can only know the diſtortion by the ſymptoms; for we ſhould not attempt to introduce the hand, till the mouth of the womb be dilated; it is afterwards unneceſſary; for we know that the *pelvis* is too ſmall, or the head of the child too large, by its not advancing in proportion to the pains, and by feeling a ſharp ridge like

like a ſow's back, on the top of the child's head, which is occaſioned by the bones riſing over each other, in conſequence of the preſſure.

How long Nature, in ſuch circumſtances, can ſupport the conflict, is difficult to ſay. It is ſufficient to obſerve, that, when things are properly prepared for the advance of the child, when the firſt ſtage of the labour is accompliſhed, but its progreſs is *then* ſuſpended, it is of little conſequence to the midwife whether the obſtacle is to be referred to the child or the mother. Female practitioners ſhould carefully avoid the hazardous extreme of too long neglecting that aſſiſtance which may relieve them from much embaraſſment, and preſerve the labouring woman from threatening danger. By ſuch prudent conduct, a woman of merit and underſtanding will recommend herſelf to the confidence of thoſe who employ her, and thoſe reflections be prevented, which, though in many inſtances ill grounded, have, in others, been the

reproach

reproach of female practitioners; for, if the ſtrength of the labouring woman begins to decline, if the head of the child has been long confined, or wedged, as it were, in the bony paſſage; if the genital parts begin to ſwell, and the urine be ſuppreſſed, the longer the proper means of expediting delivery be neglected, there is leſs chance of preſerving the life of the mother or child; and the midwife is culpable for her neglect or miſconduct. But, on the contrary, ſhe ought not to betray that timidity, impatience, or diſtruſt which may alarm her patient unneceſſarily. She ſhould form an opinion from an attentive conſideration of the circumſtances of the caſe, and ſhould guard againſt being impoſed upon, either by the anxiety and impatience of the diſtreſſed woman, or by the noiſy clamours of the impertinent attendants.

Thickneſs and rigidity of the Os uteri.—This is one of the moſt common cauſes of lingering labours; it chiefly occurs in elderly

derly women, in ſtrong robuſt conſtitutions, or where the intervals between child-bearing have been diſtant. If the orifice of the womb, inſtead of kindly opening with the pains, and becoming thin, ſoft, and dilatable, ſhould form a thick ring, or flap, ſtretch ſlowly, and the pains are frequent, but unprofitable, a tedious labour may be expected. In this caſe, warm glyſters, injections of warm oil into the *vagina*, and the vapours of warm water, after the waters have paſſed, are the only means of relief; for it is difficult and dangerous to ſtretch the mouth of the womb with the fingers. If we have patience to wait on Nature, we ſhall find her own efforts frequently ſufficient.

In a firſt labour, or when the woman is advanced in life, and the parts are dry and rigid, from 36 hours till three days may be required for the dilatation of the orifice of the womb; yet, if the management be properly regulated, neither the mother nor the child will be in danger, and the mo-

ther's

ther's recovery will perhaps go on as favourably as if the delivery had been accompliſhed in a few hours.

Drineſs and conſtriction of the Vagina.—The diſadvantage of theſe contractions in the ſoft parts chiefly, is, that the head of the child is detained for ſome time from advancing without the *os externum*, after it has paſſed through the bony cavity. The child, however, rarely ſuffers from this cauſe. Warm fomentations to ſoften the parts, not to heat the body, may, in theſe caſes, be uſed, and oil or *pomatum* applied; but it is of the greateſt conſequence that the parts ſhould ſtretch ſlowly; ſo that we ought not to haſten the ſtretching by any manual application.

A Diſeaſed ſtate of the Parts.—A prudent ſenſible woman, who has been regularly inſtructed in the art, will readily diſcover any deviation from the natural ſtate of the genital parts, and ſhould take the earlieſt opportunity of giving notice, that

the neceſſary aſſiſtance of a ſkilful ſurgeon may, in proper time, be obtained.

Swelling, Inflammation, or Ulceration of the Vagina—may proceed from various cauſes. In a diſeaſed ſtate of the parts, the throes of labour will be more ſevere, but there is ſeldom difficulty or danger from it. Oedematous ſwellings, that is, thoſe which pit to the touch, extending from the legs and thighs to the *labia*, incident to the laſt ſtages of pregnancy, however formidable in their appearance, very ſeldom prove the cauſe either of interrupting or preventing delivery.

Sores, or ulcers from a venereal cauſe, will give great pain in time of labour; but the diſeaſe is now ſo well known, that, if a pregnant woman be ſo unfortunate as to receive the infection, ſhe will hardly think of neglecting to take advice, or of applying the proper remedies, till the term of lying-in.

From previous ulceration, or laceration of the *ós uteri* and *vagina*, diſagreeable conſtric-

conſtrictions happen; but they are frequently overcome in time of labour. There are many well atteſted inſtances, where, at the commencement of labour, it was utterly impoſſible to paſs a finger within the contracted orifice of the *vagina*, yet the parts dilated as labour increaſed, and the delivery terminated happily. In ſome caſes, the dilatation begins during pregnancy, and is completed in time of labour.

Unnatural tumours about theſe parts require the aid of ſurgery.

Prolapſus of the Uterus, Vagina, and ſtrait gut.—In a *pelvis* too wide in all its dimenſions, the womb at full time may deſcend into the *vagina* by the force of the throes of labour, though ſuch caſes very rarely occur. The only treatment is to ſupport the womb well by preſſure with the hand, in time of the pain, that the ſtretching of the parts may be gradual.

The *vagina*, in weakly women, often prolapſes in time of labour, and is protruded before the child's head by the force of the

the pains. If this happens, it muſt be replaced in the abſence of the pain, by gentle preſſure with the fingers, introduced in a proper manner and direction, and its return afterwards prevented.

Prolapſus of the *gut*—muſt be treated in a ſimilar manner; its return may be prevented by preſſure with a thick linen compreſs applied over the fundament, and retained with the hand in time of the pain.

Stone in the urethra.—In thoſe women ſubject to graveliſh complaints, a bit of ſtone thruſt forwards, by the force of labour, from the neck of the bladder into the urinary paſſage, will occaſion difficulty, pain, or ſuppreſſion of urine, and may, if not removed, prove an inſurmountable obſtacle to the progreſs of labour. If it cannot eaſily be puſhed back, by introducing the catheter, a ſurgical operation muſt be had recourſe to.

Hardened excrement collected in the ſtrait gut—frequently proves an obſtacle to labour; for the contents of the gut form a large

large tumour, which can be readily felt from the *vagina*, and diminiſhes its cavity. This tumour has been miſtaken for the child's head, but the miſtake is ſoon diſcovered by a ſkilful practitioner; for it is removed by frequent glyſters.

II. The protraction of labour may depend on the child, and may ariſe from,

1. The bulk or ſolidity; or,

2. The unfavourable poſition of the head.

1. *The bulk of the head.*—There may be either a natural diſproportion between the head and body, or the ſwelling may be occaſioned from a collection of water in the head, or be the conſequence of the child's death.

From the ſtructure and make of the *pelvis* and head in a natural ſtate, it is evident, that a head of a larger ſize, having the bones ſoft and moveable, will paſs through the *pelvis* with leſs difficulty, and occaſion

occaſion leſs pain in the birth, than a ſmaller head, having the bones more ſolid, and the ſutures more firmly connected. A large head may be ſuſpected when the *vertex* does not lengthen out by the force of the pains, (as it commonly does in lingering labours), when the progreſs of the labour is ſuſpended, though the pains continue to be ſtrong and frequent after the ſoft parts are ſufficiently dilated; when the woman is in good health, and there is no other apparent cauſe to account for the protraction.

When the ſwelling proceeds from a collection of water in the child's head, it may be known by the head preſenting at the brim of the *pelvis* in a round bulky form, by the diſtance between the bones of the head, and by a ſoftneſs and fluctuation evident to the touch.

When the child has been long dead, the head and body often ſwell to a great ſize. This may be known from the hiſtory of the caſe; from a particular puffy feel of the preſenting part of the child; from the diſcharge

charge of putrid waters, ſometimes mixed with the *meconium* (ſtools) of the child; and from the ſeparation or peeling of the outer ſkin of the head when touched. Though it may be here obſerved, that the moſt probable or ſuſpicious ſymptoms of the child's death are often deceitful.

From whatever cauſe the head is enlarged, if the difficulty ariſes from that circumſtance, and the force of the pains proves inſufficient to puſh the head forwards; if it has made no ſenſible progreſs for ſeveral hours after the waters were diſcharged, and the *os uteri* is fully dilated; and if the pains ſhould begin to remit or ſlacken, and the woman to be low, weak, or dejected, it will then be neceſſary to have recourſe to the aſſiſtance of art.

2. *The unfavourable poſition of the head.* —The head of the child may be ſqueezed into the *pelvis* in ſuch a manner as not to admit of that compreſſion neceſſary for its paſſing through the bony cavity.

Where

Where the *pelvis* is well formed, and the head of an ordinary ſize, although it ſhould preſent in the moſt awkward and unfavourable poſition, it will yet paſs on; and Nature, under proper management, will, in moſt caſes, ſafely accompliſh the delivery. The labour will unavoidably be more painful and laborious; but, whatever time may be required, there is leſs hazard either of the mother or child, than if delivery had been haſtened by the intruſion of officious art; for both mother and child ſuffer the natural bruiſes much better than the movements of the ſofteſt hands.

But, if the woman be weak or exhauſted, and the pains trifling; if the head of the child be large, the bones firm, and the ſutures cloſely connected; or if there be any degree of narrowneſs in the *pelvis*, a difficult labour may be expected; and the life of both mother and child will depend on a well timed and ſkillful application of the ſurgeon's hands.

The

The unfavourable poſition of the head may be referred to two kinds, which include a conſiderable variety.

1ſt, *When the crown, inſtead of the vertex preſents.*

2dly, *Face caſes.*

1ſt, *When, the fontanella or open of the head*, inſtead of the *vertex*, firſt preſents to the touch, a more painful, or tedious labour may be expected; for the face is generally placed either towards the *pubes* or *ſacrum*, and does not take the ſame mechanical turns in paſſing through the *pelvis*, as in natural labour. The bulky crown is forced within the brim of the *pelvis* with more difficulty, it paſſes through the cavity more ſlowly, the labour is more painful; and, when the head has advanced ſo far that the crown preſſes on the ſoft parts at the bottom of the *pelvis*, there is much greater hazard of the tearing of the *perinæum*, than when the lengthened out *vertex* preſents; but, if no other obſtacle occurs, the labour, notwithſtanding, will, by

proper management, generally end well; and much injury may be done by the intruſion of officious hands.

2*dly*, *Face caſes.*—Of laborious births, face caſes are the moſt difficult and troubleſome. From its length, roughneſs, and inequality, the face muſt occaſion greater pain; and, from the ſolidity of the bones, it muſt yield to the propelling force of labour throes with more difficulty than the ſmooth moveable bones of the *cranium.* Our ſucceſs in delivery in theſe caſes will chiefly depend on a prudent management, by carefully ſupporting the ſtrength of the woman.

The varieties of face caſes are known by the direction of the *chin*; for the face may preſent,

1*ſt*, With the chin to the *pubes.*

2*dly*, To the *ſacrum.*

3*dly*, and 4*thly*, To either ſide.

The rule in all theſe caſes is, to allow the labour to go on till the face be protruded as low as poſſible.

It is often as difficult as hazardous to puſh back the child, and to bring down the crown, or *vertex*, as to turn the child, and deliver it by the feet.

Sometimes a ſkillful artiſt may ſucceed in his attempt to alter the poſition, when he has the management of the delivery from the beginning; or, in thoſe caſes where the face is conſiderably advanced in the *pelvis*, may be able to give aſſiſtance by paſſing a finger or two in the child's mouth, and pulling down the jaw, which leſſens the bulk of the head; or, by preſſing on the chin, to bring it under the arch of the *pubes*, when the crown getting into the hollow of the *ſacrum*, the head will afterwards paſs eaſily. But few female practitioners have ſkill, courage, and dexterity for the taſk; and, therefore, in all caſes of difficulty or perplexity, where no immediate hazard attends the delay, the advice and aſſiſtance of an expert accoucheur ſhould be employed.

III. The

III. The third general cauſe of tedious or lingering labour, ariſes from the *placenta* and its appendages.

1*ſt*, *The membranes may be too ſtrong, or too weak.*

From the *former* of theſe cauſes, the birth is, in ſome inſtances, rendered tedious; but, as the ſame effect is much more frequently produced by the contrary, and the conſequences much more troubleſome and dangerous, practitioners ſhould be exceedingly cautious of having recourſe to the common expedient of breaking them till there be a great probability that the difficulty proceeds from that circumſtance; and, even then, it ought not to be done till the parts be completely dilated, the head of the child well advanced in the *pelvis*, and the membranes protruded, in a rounded form, as far as the *os externum*. Many inconveniencies enſue from a premature evacuation of the waters, an error

Which

which ignorant practitioners often commit; for thus the parts become dry and rigid, and the dilatation goes on ſlowly, the pains often either remit, or become leſs ſtrong and forcing, although not leſs painful and fatiguing, the mouth of the womb which was previouſly thin and yielding, may be obſerved to contract, and to form a thick ring, for ſome time obſtinately reſiſting the force of the pains, the woman's ſtrength languiſhes, and her ſpirits are overcome and exhauſted, and, at laſt, the child's head becomes locked in the *pelvis*, merely from want of force of the pains to propel it.

An inconvenience of *too great rigidity* of the membranes is, that the child at full time may be protruded, incloſed in the complete membranous bag, ſurrounded with the waters. But ſuch inſtances ſeldom occur. When the whole *ovum* is thus protruded at once, there is hazard of flooding from the ſudden detachment of the *placenta* and membranes. It ſhould, therefore, be prevented by breaking the membranes,

when

when they advance and ſpread out at the *os externum*, and the head of the child follows in the ſame direction.

The method of breaking the membranes is, to pinch them between the finger and thumb; to puſh a finger againſt them in time of a pain; run the ſtilet of a catheter through them; or, when there is little water protruded, and they are applied cloſe in contact with the child's head, they muſt be deſtroyed by ſcratching with the nail; but care ought to be taken that the ſcalp of the child's head, covered with *mucus*, be not miſtaken for the membranes.

2*dly*, *The waters may be too copious, or ſparing*. The *firſt* is inconvenient; for, by this means, the weight of the water gravitating againſt the under part of the membranes, in time of a pain, may burſt them too early, and occaſion the diſadvantages before mentioned.

An extraordinary quantity of water may overſtretch the womb, and prevent or weaken the pains. Such a cauſe of protraction

traction may be ſuſpected, if the firſt ſtage of labour goes on very ſlowly; if the woman be very big bellied, and if much time be ſpent before the head of the child becomes locked in the bones of the *pelvis*.

Although this circumſtance may occaſion a temporary delay, it will never, however, be attended with dangerous conſequences; and a female practitioner ought to be very cautious of employing a method of haſtening delivery, which, if it ſhould fail, will produce effects directly contrary to thoſe expected.

Little or no water—is ſometimes contained in the membranes. The parts, then, ſtretch with more difficulty and pain, and muſt be lubricated from time to time with butter or *pomatum*, in the manner mentioned under the article of *rigidity of the ſoft parts*.

3*dly*, *The chord may be too ſhort, or too long*.

The exraordinary length of the chord, by forming folds round the child's neck or

body,

body, may prove the cauſe of protracted labour; but there is generally ſufficient length to admit of the birth of the child ſafely; and it is time enough, after the child is delivered, to ſlip the nooſe over the ſhoulders and head. After the head is protruded, the ſhoulders are ſeldom prevented from advancing by folds of the chord round the neck; and it very rarely becomes neceſſary to paſs a finger between the child's neck and the chord, to divide the chord, while the child is in the birth, a practice that may be attended with trouble and hazard.

Another inconvenience of the great length of the chord, though it may alſo proceed from the low attachment of the *placenta*, is,

The prolapſus or falling down of the chord, doubled, before the child's head—A circumſtance which often proves fatal to the child; for, if it be not reduced by puſhing it up within the *uterus*, beyond the bulky head of the child, and prevented from

from returning, with the fingers, till the head, by the force of the pain, deſcends into the *pelvis*, the circulation will ſoon ſtop, by the preſſure of the chord between the head and *pelvis*, and the child will infallibly periſh. If this method of reducing the chord ſhould fail, or if the pains be too quick and forcing, to admit of the attempt, a warm cloth ſhould be applied to the *os externum* over the chord, to cover it from the cold, and the natural pains ſhould be waited for; if the pains be very ſtrong and forcing, and the progreſs of labour quick, the child may yet be born alive. Some adviſe to preſerve the child, by turning and delivering by the feet; but it is, at beſt precarious; for new difficulties may occur; the operation is painful and hazardous, and it would be extremely criminal to expoſe the mother's life to danger, when there is no certainty of preſerving the child. In ſuch intricate caſes, the midwife ſhould never depend on her own ſkill, when there

is eaſy acceſs to the advice and aſſiſtance of a regular practitioner.

The navel-ſtring is, ſometimes, naturally thick and knotty, or thickened, and, of conſequence, ſhortened, by diſeaſe. If this happens, part of the *placenta* may be ſeparated as the child advances, and a flooding enſue; or, the ſtring may be actually ruptured, and occaſion the death of the child; but ſuch inſtances are very rare.

The *4th* cauſe is, *the improper attachment of the placenta over the orifice of the womb*, and is a more dangerous circumſtance than any other; for, if the delivery be not ſpeedily accompliſhed, blood, from the ſeparation of the *placenta*, will pour out ſo profuſely, that the unfortunate woman will very quickly ſink under it. This unhappy event can be prevented by no other means but by an expeditious delivery. The alarming ſituation of the woman will be ſufficiently indicated by the appearance and rapid increaſe of flooding, and by the ſoft pappy feel of the after-birth to the touch.

One

One half hour's delay, or leſs, may, in ſuch circumſtances, prove fatal to the mother and the child; therefore, the friends ſhould immediately be appriſed of the danger, and the earlieſt aſſiſtance be procured *.

2*dly*, *Difficult, or ſtrictly Laborious Labours*—are, "caſes where Nature is inſuf-"ficient to perform her office, and where "the hand of the operator is not able to "aſſiſt her." In ſuch caſes, we are obliged to uſe inſtruments, which, except in the moſt difficult circumſtances, are ſuch as injure neither mother nor child, and are ſtiled *Forceps*; in more deſperate ones, we are obliged to uſe thoſe which deſtroy the child, in order to preſerve the mother.

1. The *Forceps* may be conſidered as artificial hands, ſo formed, that, when the head of the child is properly advanced, and the parts of the mother ſufficiently prepared, can be introduced into the *pelvis* without doing any injury to either.

When

* See method of delivery in flooding caſes, claſs 4th of preternatural labours.

When the woman is placed and ſecured in a proper poſition, they are to be paſſed blade by blade, cautiouſly guided by the hand of the artiſt, and applied over the ears of the child; the handles being then brought together, and ſecured, the extraction is to be made in a ſlow, deliberate manner, waiting for pains, if there are any, or, in their abſence, imitating Nature as nearly as poſſible, by reſting at regular intervals, that the parts of the woman may have time to ſtretch, and accommodate themſelves to the paſſage of the child.

This inſtrument is now arrived at ſo great a degree of perfection, that the child's head is ſeldom bruiſed, or otherwiſe injured during the extraction, unleſs the ſize be uncommonly large, or the parts of the mother much contracted; and, in the hands of an expert practitioner, the *forceps* give ſo little pain to the mother, that, when abſolutely neceſſary, they may be introduced without her knowledge.

2. The inſtruments deſtructive to the child are ſciſſars, crotchet, and blunt-hook.

When, from the enormous ſize of the head or child, or narrowneſs of the *pelvis*, the child cannot be delivered with the *forceps*, and the woman's life is in danger, the ſize of the child muſt be diminiſhed, and the extraction afterwards made by the hand of the ſurgeon, the crotchet, or blunt-hook. But as, in this claſs of labours, the delivery is to be performed by inſtruments, to the management of which women, from their delicacy and tenderneſs, are unequal, we ſhall add no more on the ſubject. In all caſes of difficulty and danger, where the former and ſubſequent methods fail, the midwife ſhould apply to a ſurgeon.

III. *Claſs of Labours, called* PRETERNATURAL.

Labours are ſtiled *preternatural* 'when 'any part of the child's body, except the 'head,

'head, preſents, or is firſt felt by the fin-
'ger at the mouth of the womb.'

We have already ſaid, that, in the moſt natural poſition, the top of the head preſents; but the feet often firſt appear, and the child is delivered in that manner. In other caſes, however, of preternatural preſentation, the poſition muſt be altered, and the child, in the language of midwifery, is then ſaid to be *turned*.

The cauſes of preternatural labours probably are,

The motion and ſtirrings of the *foetus*, either naturally, or from ſhocks affecting the mother. For, in the early months, the *foetus* having once altered its poſition, may be prevented from recovering it by folds of the chord round its body and limbs; and, in advanced geſtation, if the breech ſhould get undermoſt inſtead of the head, the child will, with difficulty, be reſtored to its proper poſition, as the quantity of water is conſtantly decreaſing, and the child becoming more bulky.

The

The poſition of the child in the womb may be alſo influenced by its particular figure and conſtruction, the quantity of ſurrounding water, the length of the chord, the manner of ſtretching of the womb, the ſhape of the baſin, and a variety of other circumſtances.

We can ſometimes diſcover that the child preſents in an unfavourable poſition, even when the labour is but little advanced.—We ſuſpect it,

1ſt, If the pains be more ſlack and trifling than uſual.

2dly, If the membranes be protruded in a long form, like a gut, or the finger of a glove.

3dly, If no part of the child can be felt when the orifice of the womb is conſiderably opened; or,

4thly, If the preſenting part, through the membranes, be ſmaller, feels lighter, and gives leſs reſiſtance, when touched, than the bulky heavy head.

It

It can only, with certainty, be aſcertained, after the membranes are ruptured, by feeling diſtinctly the preſenting part. If the child's ſtools be paſſed with the waters, it is a ſign, either that the breech preſents, or that the child has been for ſome time dead.

Preternatural labours are difficult of delivery or hazardous, from

1*ſt*, The health and conſtitution of the woman, and figure and dimenſions of the *pelvis*.

2*dly*, The bulk of the child's body and manner of preſenting.

3*dly*, The time which has paſſed ſince the waters were evacuated; for, if that has been long, the womb is more ſtrongly contracted, and the preſenting part puſhed on, and more firmly locked in the *pelvis*.

4*thly*, From a plurality of children; from the chord falling down before the preſenting part, being entangled with its limbs; or, from profuſe flooding.

The

The variety of preternatural poſitions may be reduced to the following claſſes:

I. When one or both of the lower extremities preſent, as one or both feet, knees, or the breech.

II. When the child lies eroſs the *pelvis*, in a rounded or oval form, with the arm, ſhoulder, ſide, back, or belly preſenting.

III. One or both arms protruded before the head.

IV. Premature or flooding caſes, or where the navel-ſtring falls down double before the preſenting part, and the child's life is in danger from its compreſſion.

Each claſs of this general diviſion includes a variety of particular caſes. By giving a few examples of each claſs, a general idea of the manner of treating the whole will be formed.—It is, however, neceſſary to obſerve, that, though delivery, in *ſome* preternatural caſes, may be eaſy, that

it is always precarious, and often difficult; ſo that a ſurgeon ſhould *always*, if poſſible, be conſulted.

CLASS I. *When one, or both feet, knees, or the breech, preſent.*

Caſe 1. The ſimpleſt and eaſieſt caſe of preternatural labour is ſuppoſed to be, *when the child preſents with the feet;* but there is ſometimes danger leſt the head ſhould be retained after the delivery of the body, which is leſs when the child preſents double.

We are often able to diſcern the preſenting part long before the membranes break, and it is of great conſequence to diſcover early how the child lies; but, in making the neceſſary examination, care muſt be taken not to preſs the finger againſt the membranes in time of a pain. When the preſenting part is at a diſtance, or the poſition of the child appears doubtful or obſcure, the woman ſhould be ſhifted from her ſide

to her back, examined in a ſitting poſture at the *pubes* where the *pelvis* is ſhallow, or on her knees. A hand is often miſtaken for a foot; but the latter may be readily diſtinguiſhed from the former by the weight and reſiſtance it gives to the touch, by the ſhortneſs of the toes, and the length of the heel.

When one, or both feet preſent in the paſſage, little more ought to be done than if the labour were ſtrictly natural, till the orifice of the womb be ſufficiently dilated, and the preſenting part advanced at, or without the *os externum*. The woman muſt then be placed either on her ſide, with the breech over the edge of the bed, and her head obliquely to the oppoſite ſide; or, on her back croſs the bed ſupported by an aſſiſtant in the bed to raiſe her head and ſhoulders, and an aſſiſtant at either ſide of the bed on a low ſeat, whoſe office is to ſecure the woman's feet, to ſeparate her knees, and prevent her from ſhifting. When any difficulty in extracting the head

may

may be ſuſpected, or, when the midwife is not very dexterous in the art, the latter poſture is preferable. It is alſo, in general, the beſt poſition in all thoſe caſes where it is neceſſary to paſs the hand into the *uterus*, to make the delivery by turning the child.

When the parts are thus ſufficiently open, or the feet, by the force of repeated pains, at, or protruded without the orifice of the *vagina*, the midwife may then take hold, firſt of one leg, graſping it firmly above the ancle, and gently endeavouring to pull it down in the time of a pain, not in a ſtraight line, but from ſide to ſide; when the pain remits, a warm cloth is to be applied to the *os externum*, and the return of the pain ſhould be waited for. The other leg is then to be taken hold of and pulled down in the ſame gradual gentle manner with the former; by this means there is leſs hazard of injuring the *uterus* than if an attempt were made to bring down both feet at once, and the paſſages being thus gradually ſtretched,

will

will be better prepared for the delivery of the bulky ſhoulders and head.

When the feet are ſufficiently advanced for it, a warm cloth ſhould be wrapped round them, which will enable the operator to take a firmer hold, and defend the child from the hazard of injury by the extraction. But the cloth ſhould be ſo applied as to leave the toes expoſed, for *they* are the proper direction for turning the body. If they already point to the *ſacrum*, the child is to be brought along in the ſame direction, till it ſtops from the reſiſtance of the ſhoulders. But if, inſtead of pointing backwards, the toes ſhould point to the ſide or belly, the child's body muſt be gradually turned till the belly be applied to the back of the mother, and the back of the child to the mother's *pubes*.

The proper time to begin to turn is, a little before the breech advances to the *os externum*. The turn ſhould not be made all at once, but gradually; the child's body muſt be firmly graſped with both hands, puſhing

puſhing a little upwards, then turning to one ſide in time of the pain, carefully obſerving and favouring that line of direction which the child naturally inclines to take. The attempt muſt be repeated during every pain, till the child's body be turned round, and the face applied to the *ſacrum* of the mother. The motions of the child's head and body do not always exactly correſpond. Therefore, after the belly of the child preſſes againſt the *perinaeum* of the mother, a quarter turn extraordinary is ſtill neceſſary, which muſt again be reverſed before the operator begins to extract. By that means the arm will be prevented from getting under the face, the broad ſhoulders will be applied to the wideſt diameter of the *pelvis*, the face will be turned towards the angle of the *ſacrum*, and readily follow in that direction.

When the breech is entirely protruded without the *os externum*, the child muſt be taken hold of by graſping firmly with the thumbs above the haunches, and the fingers

gers ſpread over the groins; the extraction muſt be gradually performed, moving from ſide to ſide, preſſing a little downwards towards the *perinæum*, and waiting for natural pains, or reſting from time to time. As the belly advances, the operator muſt ſlide up her hand, or two fingers, and, very gently, draw down a little the umbilical chord, leſt, being tenſe and over-ſtretched, the circulation might be interrupted, and the life of the child deſtroyed, which often happens where this precaution is neglected.

After the breech is protruded, and the navel-ſtring begins to be compreſſed, from the *os tincæ* graſping it like a ring, the delivery muſt be conducted with all the expedition that the mother's ſafety will admit of. When the child is advanced as far as the breaſt, its farther progreſs is prevented by the arms going up by the ſides of the head. This obſtacle muſt be removed in this manner: The child's body ought to be ſupported by the left hand of the midwife, which muſt be paſſed under the breaſt of the

the child, in ſuch a manner that the child may reſt on the palm and arm of that hand; the child muſt then be drawn a little to one ſide, that two or more fingers of the right hand may be paſſed, at the oppoſite ſide, into the *pelvis*, over the back of the ſhoulder, as far as the elbow, to bring down the arm obliquely along the breaſt, gently bending it at the fore arm, in ſuch a manner as to favour the natural motions of the joint. Having then ſhifted hands, the midwife muſt diſengage and bring down the other arm in the ſame manner.

Both arms of the child being relieved, the woman may be allowed to reſt a little till another pain or two follow, when, by bearing down in the time of the pain, the head will generally be forced down and delivered. But, if the woman be much exhauſted, and the head does not quickly follow, the child will be loſt from the preſſure of the navel-ſtring.

The pulſation, or beating of the arteries in the chord, ſhould regulate the time for extracting

extracting the head; while the pulſation is ſtrong, there is no hazard from delay; if the pulſation be weak or languid, more eſpecially if the chord be cold and flaccid, the extraction muſt be quickly performed, otherwiſe the child will be deſtroyed.

The extraction of the head in preternatural labours is often the moſt difficult and dangerous part of the delivery. The cauſe of reſiſtance, when it does not advance, is chiefly owing to its confinement between the *ſacrum* and *pubes*, when the bulky part of the head is detained at the brim, or at the lower part, by the chin catching on the ſacro-ſciatic ligaments. The method of delivery is to introduce two fingers of the right hand (which hand and arm at the ſame time muſt ſupport the body of the the child) into the mouth, and pull down the jaw towards the breaſt; then applying the other hand with the fingers ſpread, ſo as to preſs down the ſhoulders, the midwife muſt riſe from her ſeat, and pull in a direction from *pubes* to *ſacrum* with conſiderable force, alternately raiſing and de-

preſſing the head, till it begins to yield, ſo that the chin being conſtantly preſſed to the breaſt, the face will deſcend from the hollow of the *ſacrum*; the midwife muſt then finiſh the delivery by bringing the hind-head from under the *pubes* with a half round turn.

During theſe efforts, an aſſiſtant muſt be directed to preſs on the *perinaeum*, and whenever the circumſtances of the caſe will admit of it, the exertions of the operator ſhould coincide with the natural throes of labour, by which the extraction will be greatly facilitated.

If the poſition be unfavourable, the face, if poſſible, ſhould be turned towards the *ſacrum*, by puſhing up the head, or by preſſing on the chin; if the difficulty ariſes from folds of the chord round the legs, thighs, body, or neck of the child, theſe muſt be diſengaged in the eaſieſt manner poſſible. The contraction of the mouth of the womb round the child's neck rarely proves the cauſe of reſiſtance, except when the feet are pulled down too early, or in pre-

premature labours, when it may be gently ſtretched with the fingers, and further endeavours ſhould be delayed for ſome time.

If all the methods now directed for extracting the head ſhould fail, and the obſtacle ſhould depend on the bulk of the head, or narrowneſs of the *pelvis*, it will be needleſs for the midwife to exhauſt herſelf and diſtreſs her patient by longer perſiſting in fruitleſs efforts, except ſo far as the pains can aſſiſt. A ſurgeon ſhould immediately be ſent for, leſt, from too frequent coercive exertions, the body of the child ſhould be pulled from the head, an accident which ought never to happen in the hands of a well inſtructed practitioner.

Caſe II. *When one foot only is protruded into the vagina*, the other is ſometimes detained by catching on the *pubes*, and if eaſily come at, ſhould be brought down, always obſerving to humour the natural motion of the joint; but, if the leg ſhould be folded up along the child's body, or of difficult acceſs, the attempt is not only troubleſome,

bleſome, but dangerous, as there is hazard of tearing the *uterus*. It is leſs neceſſary, as the breech will be either naturally forced down by the aſſiſtance of pains, or by gently pulling at one leg only.

Caſe III. *When one or both knees preſent*, the legs often cannot be brought down, till the breech be gently raiſed and puſhed a little back in the *pelvis*.

Caſe. IV. *If the feet ſhould offer along with the breech*, it muſt be cautiouſly thruſt back, while the former are ſecured and brought down, till the poſition be reduced to a footing caſe, and the delivery otherwiſe managed, as already directed.

Caſe V. *The Breech.*

The varieties of the *breech* are,

1*ſt*, The fore parts of the child placed to the *pubes* of the mother;

2*dly*, To the *ſacrum*;

3*dly*, To either ſide.

Sometimes

Sometimes the poſition of the breech may be diſcovered before the membranes break; but afterwards with more certainty by the *meconium*, or ſtools of the child accompanying the waters; and by feeling the buttocks, thighs, or genitals of the child to the touch.

In whatever manner the breech preſents, the delivery ſhould be ſubmitted to nature, till the child be advanced ſo far, that the feet can be laid hold of, and brought down. If the fore parts of the child be already placed towards the *ſacrum* of the mother, nothing elſe is neceſſary but to ſupport the child till it advances ſo low, by the force of the natural pains, that the feet can be readily and ſafely brought down.

If the fore parts of the child be placed to the fore or ſide parts of the mother, when the child is ſo far advanced that it can be laid hold of and wrapped in a cloth, the mechanical turns muſt be made, and the delivery finiſhed, as directed in footing caſes.

There

There is much leſs hazard, in general, in allowing the child to advance double, than in precipitating the extrication, by puſhing up to bring down the feet, before the parts have been ſufficiently dilated; a practice difficult and troubleſome to the operator; painful, and ſometimes dangerous to the mother; and by which the child is expoſed to the riſk of ſtrangulation, from the retention of the head after the delivery of the body. If the child be ſmall, though doubled, it will eaſily paſs in that direction; if large, though the labour ſhould be painful, the natural throes are leſs violent and dangerous, than the pain occaſioned, *firſt* by introducing the hand with a view to turn, and, *2dly*, by puſhing up the child, in order to lay hold of the feet and bring them down. If the child advances naturally, it will be leſs expoſed to ſuffer; if it ſhould not advance, there is this advantage, that the parts of the mother will be properly prepared, when the ſtrong pains are abated,

for

for paſſing the hand into the *pelvis*, to raiſe up the breech, ſearch for the feet, bring down one or both, and deliver.

The propriety of this mode of treatment is ſupported by the pains being much ſtronger in *breech caſes* than in natural labour, but it cannot be followed when the mother is weak and the pains trifling; when ſhe is affected with floodings or convulſions; when the child is of a very large ſize, or the *pelvis* narrow; when the navel-ſtring falls down, and is compreſſed between the thighs of the child, or between the child and the *pelvis*, and cannot be reduced above the preſenting part.

The *prolapſus* of the navel-ſtring generally accompanies that poſition of the breech, where the child preſents with its fore parts to the belly of the mother. Sometimes the chord can be reduced and the child's life preſerved; but, if the breech be far advanced, and the pains ſtrong, it is not only difficult, but hazardous, to puſh up the child, who can ſeldom, in ſuch circumſtances, be preſerved. It is better,

ter, therefore, to let the child come as it will, if there are pains, rather than hazard the life of the more important mother, by attempting to puſh up and turn it. But, in all doubtful and perplexing caſes, where there is time for it, a ſkillful ſurgeon ought to be called.

When the breech is ſo far advanced, that a finger or two can be paſſed under the bended thigh, as far as the groin of the child, aſſiſtance may be given with great advantage, by alternately pulling, firſt at one ſide, then at the other, in time of the pain. But great care ought to be taken not to miſtake the ſhoulder for the breech, and not to injure the child by violent pulling. Such errors have often been committed, and the conſequences have been fatal.

In breech caſes, the midwife ſhould alſo be careful, when the genital parts preſent, leſt the child ſhould be injured by too frequent touching.

CLASS II. *Of preternatural labours, when the child lies croſs in a rounded or oval form, with the arm, ſhoulder, ſide, back, or belly preſenting.*

In the former claſs of preternatural labours, though the birth may ſometimes, when the child is ſmall, be accompliſhed without manual aſſiſtance; when the child lies acroſs, no force of pain can make it advance in that poſition; and without proper aid, both mother and child would periſh.—

If a ſkillful practitioner hath the management of the labour from the beginning, the child may generally be turned, in the worſt poſition, without much difficulty; but, when the waters have been for ſome time evacuated, and the womb is ſtrongly contracted round the child's body, turning will be difficult and laborious to the operator; painful, and even dangerous to the mother. For it ought to be conſidered, that the great difficulty and hazard of turn-

ing are chiefly owing to the reſiſtance which the womb gives, not ſo much to the poſition of the child. When the water, in whole, or in part is retained, there is eaſy acceſs to reach the feet and bring them down; but, in proportion as the water is evacuated, the cavity of the womb becomes leſs ſpacious, and turning is thus rendered both troubleſome and dangerous. It was the old practice in preternatural labours to make the head preſent; but, on account of its bulk, it could ſeldom be done, and the force employed in making the attempt was often attended with fatal conſequences. The method of delivering by the feet is the moſt important modern improvement in the practice of midwifery; an improvement to which many thouſands owe their lives.

When the child lies in a tranſverſe poſition, the management is very ſimple. We muſt gently paſs the hand into the *uterus* to ſearch for the feet, bring them down with the utmoſt caution, and finiſh the delivery

livery as in footling caſes. For which purpoſe, the following rules ſhould be obſerved, where, from the abſence of a ſurgeon, and the caſe being of ſuch a nature as not to admit of a delay, the midwife is obliged to proceed.

Rules for turning the Child.

1. The woman muſt be placed in a convenient poſture, and kept ſteady by aſſiſtants, that the operator may be able to employ either hand, as the circumſtances of the caſe may require.

2. Though the beſt poſture, in general, is to lay her on her back, with her breech placed over the edge of the bed, and her legs ſupported by aſſiſtants, it will be ſometimes neceſſary to turn her to her ſide; and in thoſe caſes where the child's feet are of difficult acceſs, or where they lie towards the *fundus uteri*, the woman ſhould be placed on her knees and elbows.

3.

3. The orifice of the *womb* ſhould be enlarged ſo much as to admit the hand to paſs freely; and the ſtrong pains ſhould be abated, before any attempt be made to deliver.

4. It is of great conſequence to endeavour to learn the poſition of the child, and to attend to the ſhape and dimenſions of the *pelvis*, before attempting to make the delivery.

5. In preternatural caſes, every poſſible means ought to be uſed to preſerve the membranes as long as poſſible: If they ſhould break, and the ſtate of the parts will admit of it, the hand ſhould be quickly after paſſed; part of the water being thus retained, the operation of turning will be greatly facilitated. But, if the waters be drained off, and the *uterus* rigidly contracted round the body of the child, warm oil ſhould be injected into the *uterus*, and a full doſe of *laudanum*, to leſſen the rigidity of the parts, ſhould be exhibited previous to any attempt to procure delivery.

6. In paſſing the hand into the *uterus*, it ought to be done in the gentleſt manner, but with a certain degree of reſolution and courage. The paſſages ſhould be well lubricated with butter, or *pomatum*; the line of the vagina and *pelvis* carefully attended to; the movements of the operator muſt be ſlow and gradual, and thus, by giving time, the utmoſt rigidity in the ſoft parts may be overcome.

7. The hand ought to be introduced only during the remiſſion of pain; and, when the pain comes, the operator ſhould ſtop, otherwiſe there is great hazard of puſhing the hand, or ſome part of the child, through the ſubſtance of the *uterus*.

8. The hand ſhould, if poſſible, be introduced by the fore parts of the child, as the feet are generally folded along the belly; and both feet, if eaſily come at, ſhould be laid hold of.

9. In puſhing back any part of the body of the child to come at the feet, the palm of the hand, or broad expanded fingers, muſt

muſt be uſed; and the back of the hand and fingers only ſhould be lubricated. This part of the operation ſhould be performed always during the remiſſion of pain, which ſhould alſo be obſerved in bringing down the legs; but in making the extraction of the body, when the legs are in the paſſage, the efforts of the artiſt ought always to co-operate with thoſe of Nature.

10. Practitioners in midwifery ſhould be cautious of giving credit to any report of the child's death; for moſt of the ſymptoms are fallacious. Children are often born alive when there is little reaſon to expect it: Therefore, in puſhing up, bringing down the legs, or extracting the body, the child ſhould never be treated roughly, but handled with the greateſt delicay.

11. When the hand is within the *pelvis*, and there is a neceſſity for paſſing it pretty high in the *uterus*, to ſearch for the child's feet, the proper direction is not preciſely in the line of the *navel*, as Dr Smellie adviſes; but inclining it a little to one ſide, to avoid

the

the prominent angle of the joints of the loins at the upper part of the ſacrum, by which more room will be gained, and leſs pain given to the woman; for the womb preſſes ſtrongly there.

12. If the hand cannot paſs beyond the preſenting part of the child to come at the feet, inſtead of thruſting back the preſenting part with violence, it ſhould be, as it were, firſt raiſed up in the *pelvis*, and then moved to the oppoſite ſide. By this means, difficulties, otherwiſe inſurmountable, may be removed, and great danger often prevented.

13. When both feet cannot readily be obtained, the foot and leg of the preſenting part ſhould be endeavoured to be firſt brought down. Hence more room will be procured for ſearching for the other foot, and the extraction will be performed with more eaſe and ſafety.

14. In all preternatural labours, when the child is delivered as far as the breech, the ſtricture of the navel-ſtring ſhould be removed,

removed, by gently drawing it down a little, as already directed.

15. Children delivered by the feet, are not only often ſtill-born, but the body is ſometimes ſeparated from the neck, and the head left behind in the womb; an accident which can only happen by the raſhneſs, negligence, or unſkilfulneſs of the practitioner.

The cauſes chiefly are: '1*ſt*, The putrid ſtate of the child's body in conſequence of its death; 2*dly*, The neglect of the operator to make the proper turns when extracting the body; 3*dly*, The narrowneſs of the *pelvis*.

To prevent it when the child's body is putrid, the operator ſhould never attempt to extract the head till two fingers be put into the mouth, and, by pulling down the jaw, and preſſing on the ſhoulders, while an aſſiſtant preſſes gently on the woman's belly, and the woman herſelf bears down in the time of a pain, the extraction may generally, unleſs when the *pelvis* is narrow,

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be affected. But, in all caſes of hazard and difficulty, the midwife ſhould give place to the ſurgeon.

16. If the head ſhould be actually ſeparated and left behind in the womb, it will ſcarcely be adviſable for a female practitioner to attempt the extraction, for there is little chance of ſucceſs. Her interference is only allowable if the woman floods, or ſhould be threatened with fits, or any other dangerous ſymptom, and a ſurgeon cannot be ſoon procured; in that event, ſhe ſhould be placed in a poſition between ſitting and lying, and the midwife, with two fingers introduced into the child's mouth, and the help of an aſſiſtant to preſs on the woman's belly, may *then* uſe her beſt endeavours to extract it.

By attending carefully to the above rules, lacerations of the *uterus*, floodings, convulſions, inflammation, and their conſequences, may be prevented, and the child's life often preſerved, even when it preſents in the moſt awkward poſition.

We proceed to conſider a few particular caſes.

Caſe I. *The Arm preſenting*—This poſition occurs frequently. It is of ſome conſequence to form a general notion how the child lies, before the operator ſits down to deliver. The right hand, by a little attention, may readily be diſtinguiſhed from the left, if we lay hold of the child's hand, in the ſame manner as in ſhaking hands.

It is often in the power of a ſkillful practitioner to prevent the hand from coming down, or to reduce it when it protrudes. But, if the arm be forced into the paſſage ſo low that the ſhoulder is locked in the *pelvis*, it is needleſs to give the woman the pain of attempting the reduction, unleſs when the head can be made to preſent, as the hand of the operator can be paſſed into the *uterus* by the ſide of the child's arm, which will of courſe return into the *uterus*, when the feet are brought down into the *vagina*. As the head, in this caſe, cannot eaſily be made to preſent,

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in order, therefore, to make the delivery by turning the child, the hand of the operator, well lubricated on the back part, muſt be conducted into the *uterus* by the ſide of the child's arm, along the breaſt and belly of the child towards the oppoſite ſide of the *pelvis*, where the head lies. If any difficulty occurs in coming at the feet, the hand already introduced muſt be withdrawn, and the other paſſed in its ſtead. If ſtill the hand cannot eaſily be puſhed beyond the child's head and ſhoulder, the preſenting part muſt be gently räiſed up, or cautiouſly ſhifted to a ſide, that one or both feet may be taken hold of, which muſt be brought as low as poſſible, puſhing up the head and ſhoulders, and pulling down the feet, alternately, till they advance into the *vagina*, or ſo low that a nooſe or fillet can be applied; and thus, by pulling with the one hand by means of the nooſe, and puſhing with the other, the feet can be brought down, and the delivery finiſhed in the moſt complicated and difficult caſes.

The

The method of forming the nooſe is, by paſſing the two ends of a piece of tape or garter through the middle when doubled; or, if the garter be thick and clumſy, by making an eye on one end, and paſſing the other extremity through it. This muſt be mounted on the points of the fingers and thumb of the hand of the operator, who muſt take hold of the child's foot, ſlip it over the foot and ancle, and ſecure it by pulling at the other extremity.

Caſe II. *The Shoulder.*——Great care ought to be taken that it may not be miſtaken for the buttock. The ſhoulder will feel harder and more bony than the full thick fleſhy hip, a mark which may be taken along with the others formerly mentioned in breech caſes.

The child often preſents by the *ſhoulder*; and, as the mouth of the womb opens, the arm, if not prevented, will readily be forced by the repeated efforts of the labour throes into the paſſage. In proportion as the arm advances and the ſhoulder becomes

becomes locked in the *pelvis*, the difficulty and danger of making the delivery will be encreaſed.

Except the child be of a very ſmall ſize, and the hand preſſed cloſe to the ſide of the head, it is impoſſible for the head and arm to paſs together; it is, therefore, cruel and barbarous to pull the arm in order to deliver the child in that way. The arm has been often torn from the body, and the mother has died in the attempt.

Caſe III. *The ſide.*—This is diſcovered by feeling the ribs.

Caſe IV. *The Back*—This is diſcerned by feeling ſome part of the ſpine or back-bone.

Caſe V. *The Belly.*—It is known by the ſoft yielding ſubſtance of the part, and by the falling down of ſome portion of the navel-ſtring.

Theſe three preſentations, viz. the *ſide*, *back*, and *belly*, more rarely occur, as the

uterus

uterus will with difficulty admit of ſuch poſitions.

When any of theſe parts do preſent, the child ſeldom paſſes any part of the brim of the *pelvis*, and is in general more eaſily turned than in ſeveral poſtures which may be offered.

The *belly*, from the difficulty with which the legs can be bended backwards, unleſs the child be flaccid, putrid, or before the time, will very ſeldom directly preſent; if it does, it will be early and eaſily diſcovered by the *prolapſus* of the chord, and there will be no great difficulty to come at the feet, and deliver.

The rule in all theſe caſes is, to paſs the hand into the womb, in the gentleſt manner poſſible, when the ſtate of the parts will admit of it, to ſearch for the feet, bring them down, and deliver, agreeably to the directions already given for that purpoſe.

CLASS III. *Of preternatural labours. One or both arms preſenting, and the head following nearly the ſame direction.*

The moſt difficult and laborious of the preternatural labours occur,—*When the child lies longitudinally in the uterus, with the arm or ſhoulder preſenting, and the head more or leſs over the* pubes, *or reſting on one ſide, at the brim of the* pelvis, *the feet towards the fundus of the womb, the waters evacuated, and the uterus cloſely contracted round the child's body.*

When the arm protrudes in this manner, it ought, if poſſible, to be reduced, and the head brought down into the *pelvis*; for it is often equally difficult and dangerous to deliver by the feet, and ſometimes utterly impracticable.

A ſkillful midwife, having the management of the delivery from the beginning, will

will often be able to prevent the arm from falling down, as it generally happens immediately, or ſoon after the rupture of the membranes. If ſhe fails, and the arm ſhould be forced down, the earlieſt attempt ſhould be made to reduce it. If the midwife ſucceeds, it will prevent much future trouble; it will be a happy circumſtance for the mother, and may be the means of preſerving both her life and that of the child. With this view, the woman ſhould be placed acroſs the bed, in the ſame poſition as that directed for turning the child. The hand, well lubricated, muſt be inſinuated through the *vagina* and *uterus*, conducted by the child's arm, till it reaches as far as the ſhoulder. The ſhoulder muſt then be raiſed up, and ſhifted, as it were, obliquely, to the ſide of the *pelvis*, oppoſite to that to which it inclines. By this means the poſition of the child will be ſomewhat altered, and the arm drawn up within the *vagina*, ſo that it will be afterwards no difficult taſk to reduce it completely.

But,

But, ſhould this method fail, an attempt may be made to puſh up the fore-arm at the elbow, and, in bending it, great care muſt be taken to avoid over-ſtraining, or diſlocating the joint. Theſe attempts muſt only be made in the intervals of pain; when the pain recurs, the operator ought immediately to deſiſt; for, by puſhing in time of the pain, or in an improper direction, the *uterus* may be torn, and the moſt fatal conſequences ſoon enſue.

In whatever manner the reduction of the child's arm ſhall be accompliſhed, if any method proves ſucceſsful, it muſt be retained in the *uterus*, by the hand of the operator, till the child's head, by the force of the next pain, fills up the *pelvis*, and prevents its return; otherwiſe the arm will be protruded as often as it is reduced.

But, if the opening of the mouth of the womb ſhould be too ſmall to admit of the reduction of the arm, or the paſſage of the hand with ſafety; if the head puſhes rather to one ſide of the *pelvis*; if the throes

of labour are violent, and the intervals ſhort, the midwife ought immediately to call in a ſurgeon, and perhaps this meaſure might be prudent on the firſt appearance of this caſe. If, in the interval, ſhe may have reduced the arm, it will not be diſagreeable to him, but materially aſſiſt the delivery; for, by delay, the *uterus* is more ſtrongly contracted round the child, and the preſenting part further protruded, and more firmly locked in the *pelvis*.

When both arms preſent, the delivery muſt be conducted much in the ſame manner as when one only preſents. The former caſe is nearly as eaſily managed as the latter, as the head ſeldom advances far in that poſition, being locked in the *pelvis*, as it were, by two wedges, ſo that the arms can either be reduced, with a view to bring down the head, or there will be eaſy acceſs to come at the feet, to bring them down, and deliver.

CLASS IV. *Of preternatural labours. Method of turning the child while the membranes are whole, or ſoon after their rupture.—Method of delivery in Flooding caſes; and when the navel-ſtring preſents.*

When the membranes remain entire till the ſoft parts of the mother are ſo much dilated, that the hand of the operator will readily find admittance, or when the hand can be paſſed within the cavity of the womb, immediately after the membranes break, ſo that great part of the water may be retained, the delivery may be accompliſhed, in the moſt unfavourable caſes, with eaſe and ſafety. But, when the waters have been long evacuated, and the womb is rigidly contracted round the body of the child, the eaſe will prove laborious to the operator, painful to the mother, and dangerous to her and the child.

When there is reaſon to ſuſpect a *croſs birth*, which can often be known, either by

by feeling the preſenting part through the membranes, or by ſome of the ſigns already mentioned, the woman ſhould be managed in ſuch a manner, that the membranes may be preſerved as long as poſſible; for this purpoſe ſhe ſhould be kept quiet in bed, and placed in that poſture leaſt favourable for ſtraining, or the exertion of force in the time of a pain. She ſhould be touched as ſeldom as poſſible, till the orifice of the womb be ſufficiently dilated. She ſhould then be placed in a proper poſition for delivery, that the midwife may gently put up her hand in a conical form, with the fingers gathered together, through the *vagina* and *uterus*. The hand muſt be paſſed on the outſide of the membranes between and the womb, in a direction towards the *fundus*. The membranes may then be broken, by pinching them between a finger and thumb, or by forcibly thruſting a finger againſt them in time of a pain. The hand muſt now be directed where the feet may reaſonably be expected to lie; one or both of which

which muſt be taken hold of, and brought down. If the membranes ſhould be ruptured in the attempt, the hand muſt be paſſed up into the womb as expeditiouſly as it can be done with ſafety. Part of the waters being retained by the introduced arm, the operation of turning will, by that means, be greatly facilitated.

If the membranes ſhould be ruptured before the mouth of the womb be ſufficiently opened to allow the hand to paſs, even in theſe circumſtances, it is neceſſary that the woman be kept quiet in bed; and the ſame precautions ſhould be uſed as if the membranes were entire; for the retention of a ſmall quantity of water is of great conſequence in turning.

After the hand is introduced into the cavity of the *uterus*, if the *placenta* ſhould be found to adhere at that ſide, and to interrupt the hand of the operator from paſſing, it muſt be withdrawn, and the other hand be introduced at the oppoſite ſide.

Method

Method of Delivery in Flooding Caſes.

Floodings generally proceed either, 1*ſt*, from an accidental ſeparation of ſome portion of the *placenta* from the body of the *uterus*; or, 2*dly*, From the unavoidable detachment of ſome part, when the cake adheres at the neck, or over the orifice of the womb.

1*ſt*, Floodings from the former of theſe cauſes may be often checked by proper management, and are ſeldom dangerous before the 7th month of pregnancy; after which period, however, there is always conſiderable hazard. But, as it is ſometimes neceſſary to deliver, even in theſe caſes, the conſtant attendance of the practitioner is requiſite, and the utmoſt judgment to catch the proper time of proceeding. There is hazard in attempting delivery too early, while the *os uteri* is cloſe and rigid. When the woman, from loſs of blood, is ſomewhat ſunk, the mouth of the womb is more relaxed and dilatable. This can only be known

known by conſtantly *ſtaying* with her, and examining the ſtate of the *os uteri* from time to time. In ſo critical a ſituation, the neglect of half an hour, or leſs, may be fatal to the mother and child.

The beſt practice in this caſe is, firſt, to wait on giving opiates occaſionally, and keeping the woman quiet and cool. If poſſible, delivery ſhould never be attempted till the membranes begin to protrude. They may then be broken by puſhing a finger, or the catheter, through them; the water guſhing out, the womb contracts and ſtops the bleeding. We can now ſafely wait for ſix, twelve, or twenty-four hours, if neceſſary, till pains comes on, and then deliver according to the preſentation. But, if the flooding ſhould continue, or recur, or if the poſition of the child be unfavourable, the hand muſt be paſſed into the *uterus*, the feet of the child taken hold of and brought down. The womb now contracting, ſoon ſtops the flow of blood, or prevents an exceſſive diſcharge; therefore, after the feet are brought down, the body of the child

ſhould

ſhould be extracted by very ſlow and gradual efforts, leſt, from too ſuddenly emptying the womb, fatal faintings or convulſions might enſue.

2. Flooding, from the *attachment of the after-birth at the orifice of the womb*, will be ſufficiently indicated by *its* alarming appearance and rapid increaſe, and by the ſoft pappy feel of the cake to the touch; though, when there is little dilatation of the orifice of the womb, it will be neceſſary to introduce the whole hand into the *vagina*, in order, more certainly, to be able to feel the *placenta* with a finger introduced within the womb.

In theſe unhappy caſes, there is no method of ſaving the woman, but by *immediate delivery*.

We are ſometimes obliged to paſs the hand at an opening made through the body of the *placenta*; but, if poſſible, the hand ſhould rather be inſinuated at the ſide of the cake, where the leaſt portion is attached, to go into the *uterus*, break the membranes,

branes, ſearch for the child's feet, bring them down, and deliver.

In ſome inſtances, before the orifice of the womb can be ſufficiently opened to admit the hand of the operator to paſs, the whole cake will actually be diſengaged and protruded; and the birth of the *placenta*, previous to that of the child, is, for the moſt part, fatal to the mother.

Much of our ſucceſs in theſe flooding caſes will depend on *ſtaying with the woman*, and trying the dilatability of the orifice of the womb from time to time; for, after ſhe is ſunk to a certain degree, the womb loſes its power of contraction, the flow of blood increaſes, and, if neglected, ſhe ſoon dies; ſo that the *preſence of the operator* can only ſave her.

When a long attendance is neceſſary, two ſurgeons ſhould be called, or two midwives and a ſurgeon.

Though we thought it our duty to conſider this ſubject fully, and to give the beſt directions which an extenſive practice enabled us, as the neceſſity of operating may, from time to time, occur, when a male practitioner is out of the way, and there is no time for delay, it muſt not be concealed, that, in ſuch circumſtances, delivery is difficult and hazardous, and the event always precarious. Female practitioners ſhould, therefore, avoid it, when poſſible. The woman's family or relations ought immediately to be appriſed of her danger, and the earlieſt aſſiſtance of a ſkillful ſurgeon ſhould be procured.

The navel-ſtring prolapſed.—A preſſure on the navel-ſtring, perhaps for ten minutes, by interrupting the circulation, will be ſufficient to deſtroy the life of the child. A coldneſs and want of pulſation in the chord, is the moſt infallible ſign of the child's death; therefore, if any portion of the chord be protruded before any bulky part of the child, there is hazard of the loſs

of

of the child, unleſs the labour be ſoon over. The danger can only be prevented by re-placing the chord, and retaining it above the preſenting part of the child, till it, by the force of the pain, be ſo far advanced as to prevent the return of the chord; or, the child muſt be turned and delivered by the feet, (for the *forceps* cannot be uſed till the head be well advanced in the *pelvis*.) But it is often difficult to reduce the chord, and much more ſo to turn the child; and, if the pains be ſtrong and frequent, ſuch attempts are not to be hazarded, as the conſequences may be fatal to the mother.

If the child be of an ordinary, or ſmall ſize, and the *pelvis* be well formed; if the labour goes on quickly, and eſpecially if the woman had formerly good deliveries, the child may yet be born alive. If, on the contrary, the child exceeds the ordinary ſize, and the *pelvis* comes ſhort of its uſual dimenſions, *turning* would prove a dangerous operation to the mother, and there

there is little proſpect of ſaving the infant by it.

The beſt practice, therefore, is to take the earlieſt opportunity that the mouth of the womb will admit of, to reduce the chord, by placing the woman in a proper poſition, ſo that the hand of the operator may be carried up, in the abſence of pain, into the *pelvis*, and the chord entirely reduced. If this attempt fails, and it cannot be done when the pains are ſtrong and frequent, or the head wedged in the *pelvis*, a ſkillful ſurgeon ſhould *immediately* be called.

Plurality of Children.

Although women commonly produce one child only at a birth, yet the womb is capable of containing ſeveral.

Caſes of *twins* often occur, of *triplets* ſeldom, of *four* children very rarely; and there

there are few inſtances of *five foetuſes* at one birth, notwithſtanding the fabulous hiſtories which have been related by credulous authors.

It is very difficult to judge of the exiſtence of twins or triplets from appearances, before delivery; for all the ſigns enumerated are fallacious.

When there is reaſon to ſuſpect that there is any other child, it ought to be aſcertained by paſſing a finger within the *os uteri*, or, if that is inſufficient, by the introduction of the hand into the *uterus*.

The ſymptoms chiefly to be truſted after the birth of one child are,

1*ſt*, The diminutive ſize of the child, and the waters being diſproportioned to the diſtention of the gravid womb.

2*dly*, The navel-ſtring, after it is divided, continuing to bleed beyond the uſual time.

3*dly*, The recurrence of regular labour-pains.

4*thly*,

4*thly*, The retention of the *placenta*.

5*thly*, The woman's belly, not ſenſibly diminiſhed between the ſtomach and navel.

All theſe ſymptoms are ſeldom united, and ſeveral of them are, by themſelves, fallacious; for the *placentae* of twins are often diſtant from each other in the womb, and ſo looſely connected to it, that one may entirely ſeparate before the ſecond child be born; ſo that labour-pains will ſometimes ceaſe for two or three days, and there is the ſame interval between the births of the children.

It is neceſſary, therefore, to attend to the uſual diminution of the belly; and, in doubtful caſes, to introduce the hand into the womb.

The poſition of twins or triplets is commonly that which is moſt commodiouſly adapted to the *uterus*, and which will occupy the leaſt room. One child often preſents naturally; the other, or others, by the feet or breech; ſometimes both, or all,

preſent

preſent naturally; at other times, the poſition is croſs, ſo that the delivery muſt be regulated by the preſentation.

With regard to the management, oppoſite ſentiments have been entertained.

In ſome inſtances, natural pains, after the delivery of the firſt child, ſoon come on. The membranes will then be quickly forced down, and the preſenting part of the child may be readily felt through them; but, if the poſition of the child ſhould be doubtful to the touch, the midwife ought immediately to place the woman in a proper poſition, and gently inſinuate her hand by the ſide of the membranes, into the *uterus*, and examine how the child lies. If the head or breech preſent, it is only neceſſary to break the membranes, withdraw the hand, and leave the child to be expelled by the natural pains. If the feet are felt through the membranes, let them be broken, the feet taken hold of, and brought into the paſſage. The delivery muſt be otherwiſe managed as directed in footling

caſes,

caſes, carefully obſerving not to neglect the proper turns in extracting the body.

If any other part than the head, breech, or feet ſhould preſent, the latter muſt be ſearched for through the membranes, and brought down into the paſſage. The feet may, by a dexterous operator, in moſt caſes, be brought down without breaking the membranes; but, if they ſhould be ruptured in the attempt, the feet muſt then immediately be taken hold of, gently brought down, and the delivery finiſhed as formerly directed.

When the womb is very much diſtended, it, in ſome degree, loſes its power of contraction. It is from this cauſe that the pains are often leſs ſtrong and forcing, and the labour is more tedious in twins and triplets than when there is but one child; hence a conſiderable length of time, as ſeveral days, in ſome inſtances, intervene between the birth of the different children. In this interval, the woman is apt to ſuffer from impatience and anxiety. Floodings frequently

frequently come on, and the labour is more painful and hazardous, in proportion as the time of delivery is protracted. It may therefore be recommended as a general rule, if labour pains do not naturally recur from one to two hours after the birth of the firſt child, for the midwife to place the woman in a proper poſition, gently paſs her hand into the *uterus*, break the membranes, and manage the delivery according to the preſentation.

As this ſubject has given riſe to a variety of opinions among authors, we ſhall add, for the inſtruction of young practitioners, a few rules, which include the whole directions neceſſary for the management.

Rules for Delivery, in caſes of Twins, Triplets, &c.

1. If a ſecond child be ſuſpected, let a ligature immediately be made on the end of the umbilical chord next the mother,

leſt the two *placentae* being connected, the chord ſhould continue to bleed.

2. Having waited the uſual time, as if for the ſeparation of the *placenta*, and it appears to adhere firmly, let a finger be paſſed up by the ſide of the chord, to examine whether there is another ſet of membranes.

Some part of the former water may be retained within a fold of the membranes, and, protruding at the orifice of the *uterus*, may be miſtaken by an inexperienced practitioner for a ſecond ſet of membranes; but the diſtinction may readily be made by moving the finger round and round the protruding bag; or, if it be ſtill doubtful, the hand muſt be paſſed into the *uterus*.

3. When it is aſcertained that there is any other child in the womb, the midwife ſhould ſtay with the woman, as if waiting for the coming of the after-birth, and carefully obſerve leſt a flooding ſhould occur.

4. A gentle compreſſion ought to be made on the belly, which muſt be gradual-

ly

ly tightened as the bulk of the belly ſubſides.

5. If pains ſoon come on, and the child preſents in a poſition in which it can advance without manual aſſiſtance, let it be expelled by the natural pains. If it comes double, or by the feet, when the breech is advanced as far as the *os externum*, let the proper turns be carefully attended to.

6. If labour-pains do not occur within the ſpace of an hour or two after the delivery of the firſt child, it will then be adviſable to place the woman in a convenient poſition for delivery, to paſs the hand into the *uterus*, break the membranes, and otherwiſe manage the delivery, as already directed. For, if pains do not ſoon come on, the woman may go on undelivered for ſeveral days, unleſs the membranes be broken. When the waters are evacuated, the *uterus* contracts, and the child quickly advances.

If

If the pains be trifling, and have little effect in protruding the child, the ſame management will be neceſſary.

7. If, from the very ſmall ſize of the firſt and ſecond child, there may be reaſon to ſuſpect that any other yet remains; after having waited about half an hour for the ſeparation of the *placenta*, without effect, let the hand be again paſſed into the *uterus*, and if a third ſet of membranes be diſcovered, let them be broken, and the delivery managed as already directed. If there be no other child, let the *placentae* be diſengaged and extracted. But if they adhere firmly, it is better to keep the hand in the *uterus*, till by its contraction they are gradually ſeparated and diſengaged, rather than to attempt it by force.

8. The after births of twins and triplets are often connected, and adhere at the edges, though each child has its diſtinct membranes and water.

When they adhere at the ſides, they ſeparate, and are expelled together, after the birth

birth of the laſt of the children. But, when they are attached in different portions to the *uterus*, the *placenta* frequently follows the birth of that child to which it belonged, before the ſecond labour enſues.

9. When another child is diſcoverd, no attempt ought to be made to remove the *placenta*, before the delivery of the remaining child or children; ſuch attempts would expoſe the woman to the hazard of flooding, which might end fatally before the womb could be emptied of its contents.

10. The after-births of twins, or triplets, generally ſeparate eaſily, provided that time be given for the contraction of the *uterus*. Each chord ſhould be cautiouſly pulled, ſometimes alternately, ſometimes pulling by both, or by all at once, deſiring the woman to aſſiſt gently by her own endeavours of bearing down.

When the bulky maſs advances as far as the mouth of the womb, the reſiſtance occaſioned by the contracting orifice muſt be removed, by paſſing a finger or two within the *os uteri*, and bringing down the edge, the

the ſubſtance of the cake is then to be graſped firmly, and the whole entirely extracted.

When they adhere in diſtinct portions, they muſt be ſeparated, one after another, and removed.

11. If flooding ſhould occur, or any of thoſe obſtacles to expulſion formerly explained, the hand muſt be conducted into the *uterus*, and the ſeparation and extraction of the *placentae* accompliſhed, agreeably to the directions already given.

* * * *

The preſent work might be deemed incomplete, if we ſhould neglect to offer ſome advices for the management of the mother after delivery, and of the child after birth. Therefore, a few conciſe directions, on theſe ſubjects, are ſubjoined.

THE

THE MANAGEMENT OF WOMEN AFTER DELIVERY.

Thoſe means that are neceſſary for aſſiſting women in their delivery, have, in the preceding pages, been very fully conſidered. In this detail, we have endeavoured to ſhew, that, in moſt caſes, the efforts of *nature* may be ſafely truſted, and that the interpoſition of *art* is only requiſite where theſe are either interrupted, or prove inadequate to the end. The diſeaſes incident to child-bed-women, and the management during that period, is an unqueſtionable proof of the aſſertion; for our errors, in this reſpect, to which thouſands of women have fallen a ſacrifice, have chiefly originated from the high opinion we have entertained of our own ſkill, and the little attention hitherto paid to the operations of nature. Every refinement in this way has only ſerved

ved to carry us from the paths of truth, and involve us in the moſt inextricable labyrinths. It may indeed appear ſurpriſing, that medical practitioners, poſſeſſed of a degree of penetration which might enable them to diſcover theſe errors, and of reſolution ſufficient to break through an improper method, however eſtabliſhed and ſanctified by cuſtom, ſhould have permitted themſelves to be miſled by prejudices, which have proved ſo fatal in their effects. The complaints naturally incident to lying-in-women are few, while thoſe which may be called the *children of art*, are various, and often fatal.

The managemant of lying-in-women is, by no means, ſo difficult a matter as many have repreſented. A few plain rules, ſuggeſted by common ſenſe, and a careful attention to the dictates of nature, are, in moſt caſes, ſufficient. But, ſince no diſeaſes are more fatal than thoſe of lying-in-women, when neglected, or improperly treated, an early attention to the complaints

incident

incident to that ſtate is of the utmoſt conſequence; for, on the ſeaſonable application of the proper remedies, the life of the woman frequently depends. Much is, therefore, in the power of the midwife, who, in her daily attendance on lying-in-women, ought carefully to watch the firſt ſymptoms of threatening diſeaſe. By a ſkillful and prudent management, many diſeaſes may be prevented. When others unavoidably occur, the midwife ſhould neglect no opportunity of having early recourſe to proper advice. She ought to conſider herſelf in the character of the friend and nurſe of her patient, and ſhould never preſume to give an opinion in caſes which appear to be out of the line of her own province. Such prudent and becoming conduct will recommend her to the eſteem and approbation of the public, and promote that happy diſpoſition of mind to which thoſe of an oppoſite character are entire ſtrangers.

We ſhall firſt offer a few advices with regard to the ſimple management where no particular complaint happens, and afterwards, as far as is conſiſtent with our preſent deſign, explain the nature, and direct the treatment of thoſe accidents, or complaints that moſt commonly occur in the puerperal or child-bed ſtate.

In the management of child-bed women, it is neceſſary to attend, *firſt*, to the regulation of the body; *ſecondly*, to that of the mind.

Firſt, The regulation of the body.

1. Immediately after the extraction of the *placenta*, a warm cloth ought to be applied to the *os externum* and *pubes*, and the woman ſhould be allowed to reſt a little, till ſhe recovers from the fatigue of delivery. The wet clothes below and about her are then to be cautiouſly removed, and others that are clean, dry, and warm, to be ſubſtituted in their place. The belly ſhould be made moderately firm, by the application of a table napkin, folded like a compreſs,

preſs, and ſecured by pinning the broad bands of the ſkirt or petticoat over it; but painful preſſure, by tight ſwathing, according to the vulgar and erroneous practice, ſhould be carefully avoided. In cool weather, or when the woman has been accuſtomed to it, warm flannel may be applied to the ſtomach and belly.

2. As the child can ſuffer no injury from the delay, the mother ought always to be attended to in preference to it, by ſhifting her when neceſſary, changing the bed-linens, and adjuſting the bed. Her head-clothes ſhould alſo be changed, when they become wet from ſweating; but if ſhe be in danger of flooding or fainting, in that caſe, it is better to let her lie quiet till the child be dreſſed, only obſerving to apply a dry warm folded cloth immediately under her.

3. Women are liable to ſome degree of faintneſs after delivery, which has introduced the cuſtom of giving heating things, as ſpiceries, caudels, negus, hot drinks, &c. and, among the vulgar, it is ſtill the practice

tice to give a glaſs of plain ſpirits, which is very improper. Fever, flooding, or inflammation of the womb, are the common conſequences of ſuch treatment.

In general, when the woman is faint, it is better to give ſomething cold, as a little ſimple cinnamon water, or bread dipped in cold wine. If wine is apt to ſour on her ſtomach, and ſhe earneſtly wiſhes for a little ſpirits, it ought to be given very ſparingly, as by dipping a bit of ſugar in it.

When ſhe has reſted a proper time after the fatigue of delivery, bread-berry, or gruel, with a ſmall proportion of wine, may be given; or if ſhe has ſuffered much in her labour, and begins to be ſickly, a ſmall quantity of warm negus will be neceſſary.

4. Before the midwife takes her leave, it ought to be a rule with her to ſhew the *placenta* to the women preſent, that it is complete, and nothing remaining behind. This will prevent them from charging her falſely, if any unfavourable circumſtance

ſhould

ſhould afterwards happen to interrupt or prevent her patient's recovery. The neceſſary directions ſhould alſo be given reſpecting her regimen and management.

5. The diet, at firſt, ſhould be light, as beef tea, chicken broth, veal broth, or the like, for dinner; but, if the woman be delicate, averſe to ſlops, or has been accuſtomed to a full rich diet, boiled fowl or chicken, a bit of light pudding, or the like, may be given from the beginning. Some regard ought to be paid to her inclination, as well as to her former habit of life: Women who give ſuck, and who have large *lochial* evacuations, may be ſafely indulged with greater freedoms in diet, than when the milk is repelled, or the diſcharge of the *lochia* is ſparing.

6. Gruel of oat meal or groats, barley-water, toaſt and water, cow-milk whey, &c. are the moſt proper drinks. In ſummer, the drink ſhould be taken quite cold: Cool water from the ſpring, lemonade, orangeade, &c. are the beſt drinks. But, in winter,

winter, or in cold weather, or when the woman is delicate, or weak, the drink may be given luke-warm.

When the milk is to be diſcouraged, drink of every kind ſhould be ſparingly uſed. Inſtead of which, ripe fruit, as oranges, or any other cooling fruit in ſeaſon, may be taken with advantage.

7. When the mother propoſes to give ſuck, the child ſhould be early put to the breaſt, that is, within twenty-four hours after delivery. By this means a gradual flow of milk will be encouraged, and the bad effects be prevented, which are ſometimes occaſioned by the accumulation of that fluid. For painful ſwellings, or inflammation from obſtruction, ſeldom happen, unleſs from neglect of applying the child to the breaſt in proper time; or from irritating and fretting the breaſts, by coercive efforts employed to draw them. Care muſt, however, be taken, that the attempts be not continued long at once, or repeated frequently at firſt. The mother ſhould be gently

gently raiſed with pillows, and ſupported in a poſture ſomewhat between ſitting and lying, while the child ſucks; and every precaution uſed to avoid cold or fatigue.

But, if the milk be put back, the breaſts, for ſome time, will be greatly diſtended, and occaſion a conſiderable degree of pain and uneaſineſs, and ſometimes a pretty ſmart fever. This, however, is of ſhort duration, and generally terminates in twenty-four or thirty-ſix hours, with a ſouriſh ſmelling ſweat, by a gentle looſeneſs, or by a copious diſcharge of the milk freely evacuated by the nipples.

Many remedies have been propoſed, with a view to repel or diſcuſs the milk. It has for ſome time been the cuſtom to have the breaſts drawn or ſuckled for a few days or longer, from the dread of the hazardous conſequences of a ſudden repulſion. And ſome women, eſpecially after their firſt pregnancy, allow the child to ſuck now and then for a month. But, in general, where no particular complaint occurs, little

other

other precaution ſeems neceſſary, but to cover the breaſts with thin flannel, and keep the woman dry when the milk finds a free and eaſy paſſage. If the breaſts ſhould be much diſtended, very hard and painful, rubbing them ſimply with fine olive oil, warmed, every morning and evening, is the ſafeſt and beſt application. The uneaſy diſtention ſeldom continues above a day or two, and the painful conſequences are generally increaſed by the practice of forcibly drawing the breaſts, which is now leſs common. Late obſervations ſhew, that this practice, founded on prejudice, however eſtabliſhed by the authority of great names, or ſupported by faſhion or cuſtom, is ſeldom neceſſary, generally improper and hazardous, and very often productive of diſagreeable conſequences, by teazing the woman, fretting the breaſts, and may therefore, be omitted with ſafety and advantage.

8. In the child-bed ſtate, as well as during pregnancy, women are ſubject to coſtiveneſs;

ſtiveneſs; therefore, in the evening of the ſecond, or in the third day after delivery, ſome gentle laxative ſhould be exhibited, as a laxative pill, magneſia, or a glyſter; and it ought to be repeated every ſecond day, while neceſſary. But, in thoſe caſes where the milk is repelled, one, if not two ſtools every day, for a few days, ſhould be ſolicited.

9. The propriety of a frequent change of dreſs, as once a day, if the cleanſing be copious, or the woman diſpoſed to ſweat, is ſufficiently obvious.

A prejudice, for many ages, prevailed againſt the frequent uſe of clean linen, from an *abſurd opinion* that it weakened; than which nothing could be more ridiculous; on that account it was cuſtomary to confine the lying-in-woman in the ſame dreſs and bed-linens for a week, ten days, or longer, till the *lochia* became putrid, and the ſmell of the diſcharge was alike offenſive to herſelf and thoſe about her. It is now uſual to take her up, and have her bed properly

adjuſted by the fourth, or, at lateſt, the fifth day after delivery, and the ſhift, ſkirt, &c. ſhould be changed once a day, or oftener. The evening is generally preferred for the purpoſe of getting out of bed, becauſe, from the fatigue of riſing, ſhe will be afterwards better diſpoſed to reſt. But, if ſhe be weakly, and apt to be ſick on riſing, ſhe may be taken up before dinner. At firſt ſhe ſhould ſit up no longer than till the bed be commodiouſly adjuſted. Next day ſhe may ſit an hour or two, provided ſhe can do it without fatigue. After this ſhe may ſit up longer and longer every day.

But ſhe ought to be cautious of expoſing herſelf to fatigue very early, leſt the *uterus*, not yet ſufficiently collapſed, ſhould be forced down, and occaſion a *prolapſus* or falling down of the womb; a complaint of a very diſagreeable nature, and very difficult to cure.

10. The bed-chamber of the lying-in-woman ſhould be large and airy, and freſh air ſhould be freely admitted, only obſerving

ving that it does not blow on her in a ſtream; ſome portion of the bed-curtains ſhould be left open; the bed-clothes ſhould be nearly the ſame in quantity as before delivery. A gentle perſpiration is natural and beneficial, but ſweating is always dangerous in the lying-in ſtate, and ought to be diſcouraged; it weakens the woman, is frequently followed with diſagreeable eruptions, and expoſes her to the hazard of fever, or weeds. If ſhe ſweats unavoidably, the bed-linen, as well as her body-clothes, ſhould be frequently changed.

11. In ſummer, no fire in the bed-room ought to be allowed, nor ſhould the chimney be cloſed with any chimney-board; the aperture from the vent, unleſs it be placed very near the bed, makes a uſeful ventilator, by which a free circulation of refreſhing cool air is regularly ſupplied. In winter, or cold damp weather, when fire becomes neceſſary, it ought to be equally kept up.

12. During

12. During the whole time of lying-in, there ſhould be little noiſe, and leſs confuſion in the room. The loſs of blood brings on a degree of weakneſs which requires the ſupport of food, but it ſhould not be too frequently adminiſtered, and interruptions in the night ſhould be carefully avoided. Reſt and quiet are as neceſſary to recruit the ſtrength as cordials, and nothing but cool diluting drink ſhould be allowed between the regular meals. The clothes ſhould be changed as often as they give uneaſineſs; but the feelings of the woman ſhould determine the time, rather than the impertinent officiouſneſs of the attendants. The nurſe ſhould be allowed to ſleep, except when extraordinary circumſtances demand her care, either in a chair or couch, in the ſame room, or in a bed very near it. She will be ready on every neceſſary occaſion, and ſhould not intrude when her aſſiſtance is not requiſite.

Secondly,

Secondly, The ſtate of the mind—in child-bed women is of great conſequence to be attended to; and, on the proper regulation of it, recovery will, in a great meaſure, depend.

1. Soon after delivery, when the woman is dreſſed, ſhe ought to be laid quiet, and kept as much as poſſible in a ſtate of perfect tranquillity. Every thing that may flutter her ſpirits ſhould be carefully concealed, and even the child, when it can conveniently be done, ought to be removed, eſpecially in time of dreſſing, that the mother may not be diſturbed with its cries. Every thing which interrupts the uſual train of ideas ſhould be avoided, as, in the very irritable ſtate of the mind, all ſuch interruptions are attended with danger; reſtleſſneſs, fever, delirium, even convulſions, and death itſelf, from time to time, prove the conſequence.

2. All

2. All diſagreeable and ſudden impreſſions, even thoſe of light and noiſe, ought to be carefully guarded againſt; bells and knockers ſhould, therefore, be tied up; the hinges of doors lubricated with oil; the ſtreet next the windows, if it be public, ſhould be ſtrewed with ſtraw; or, if theſe ſhould not be ſufficient to prevent noiſe, the woman's ears ſhould be ſtuffed with cotton, and the laps of the night-cap pinned over them. But, particularly, any affection of the mind from circumſtances in which the woman herſelf, or any of her friends or near relations are immediately concerned, ſhould be very carefully concealed.

3. After a tedious or painful labour, an opiate, as a grain opium pill, or thirty-five drops of laudanum, may be given in a little cinnamon water, or ordinary drink, and repeated at bed-time, for a few nights ſucceſſively, to prevent reſtleſſneſs or after pains in thoſe who are ſubject to them; but, unleſs with that view, medicine of every

very kind is unneceſſary, and, in this part of the country, unfaſhionable.

4. When opiates are indicated, but diſagree with the woman, occaſioning ſickneſs, giddineſs, or head-ach, a doſe of fine Ruſſian caſtor, from 25 to 30 grains, freſh powdered, may, with great advantage, be ſubſtituted in its ſtead.

After the fourth or fifth day, when the red *lochia* abate, and the hazard from the milk is over, a draught of porter, or mild ſtrong beer, after ſupper, may be taken with ſafety, eſpecially by thoſe who have been accuſtomed to ſuch liquors, and who intend to ſuckle the child. Their good effects in opening the belly, and procuring reſt, are well known.

5. In the child-bed ſtate, company ought of all things to be avoided. Women, ſoon after delivery, finding themſelves without any particular complaint, freely indulge their favourite paſſion for talking, without conſidering the dreadful conſequences with which ſuch early fatigue is frequently attended.

tended. Their ſpirits are often fluttered by it, beſides the hazard of ſuffering from the tittle tattle and blabbing of the officious or thoughtleſs viſitors. All impertinent intruders ought to be ſhut out; and if, at any time, the woman inclines to talk a little, as it might be diſagreeable to reſtrict her to a conſtant ſilence, a prudent cautious friend to ſit by her, is the moſt proper perſon, who muſt be carefully enjoined not to carry this indulgence too far.

Having finiſhed the ſimple management of lying-in-women, we proceed to give a ſhort detail, *Firſt*, of thoſe accidents which, from time to time, happen from the delivery of the child; and, *Secondly*, of thoſe diſeaſes which ariſe from a flow of blood to any particular part, from improper management, or too great ſenſibility of the nerves.

I.

I.

Accidents in conſequence of Delivery.

1. *Swellings of the external parts.*—Theſe are common after the moſt natural and eaſy labours, but they ſoon ſubſide after delivery, and ſeldom require either the application of fomentation or poultice, unleſs when the habit of body is bad. In that caſe, inflammation, ſuppuration, or mortification may enſue.

2. *Laceration of the perinaeum.*—The tearing of the *perinaeum* is an accident which may readily happen in a firſt labour, when the parts ſtretch with difficulty; or in very quick labours, when the head of the child advances rapidly through the bony paſſage; or, in advanced life, where the parts are narrow, rigid, and contracted, if the aſſiſtance neceſſary for ſupporting it be neglected.

Though a ſimple laceration of the *perinaeum*, where the gut and bladder are not affected, under proper management, heals kindly, the tearing of the *perinaeum* is, in ſome inſtances, a ſhocking accident; for the rent often communicates to the gut, ſometimes to the bladder, in conſequence of which, theſe parts loſe their retentive faculty, and a complete cure can but ſeldom be obtained, ſo that the woman will be miſerable during her life.

3. *Inflammation, abſceſs, or gangrene of the genital parts.*—From the long confinement of the child's head in the paſſage, in lingering labour; or, from the bruiſes in a painful or laborious labour, all the ſoft parts from the *pelvis*, downwards and forwards to the *os externum*, are expoſed to the hazard of ſwelling and inflammation, which frequently terminate in ſuppuration, abſceſs, or in gangrene. They readily communicate to the *vagina*, and deſtroy the parts between it and the neighbouring organs,

organs, ſo that ſtools and urine always paſs through it; for theſe ulcers are ſeldom cured.

The ſame conſequences are often occaſioned by the officiouſneſs of thoſe who endeavour to ſtretch the parts, or touch the woman frequently, before the paſſages be moiſtened and dilated by the progreſs of labour.

In tedious labours, the confinement of the child's head is alone ſufficient to produce ſwelling and inflammation, which often terminate in the diſagreeable conſequences now mentioned; but it is difficult to ſay what degree of preſſure, in ſome inſtances, may occaſion it. In ſome women, three whole days from the commencement of labour may be required before delivery be accompliſhed; and yet, under proper management, it will end well. In others, however, or where the management has been unſkillfully directed, ſwelling, inflammation, and afterwards gangrene, will enſue, though the labour ſhould only be protracted

tracted to thirty-ſix or forty-eight hours. Midwives ſhould, therefore, be very tender of their patient, and avoid touching or handling too frequently.

It is generally in our power to prevent theſe accidents. The conſequence is always to be dreaded when the bladder is much diſtended with urine, and the ſtrait gut with hardened *faeces*. In tedious labours, therefore, the ſtate of the bladder ought conſtantly to be attended to, and the woman ſhould be urged to make water frequently, before the child's head deſcends ſo low as to preſs on the neck of the bladder, and occaſion a total ſuppreſſion. That inconvenience may then be diminiſhed by the woman taking little drink; or, for a time, removed by raiſing, or cautiouſly puſhing back the child's head, and, in the interval, her own endeavours to make water may be ſucceſsful. If this method fails, or is impracticable, the catheter muſt be employed.

The

The diſtention of the *rectum* ſhould, for the ſame reaſons, be prevented, or removed by repeated injections. Little elſe, for the moſt part, can be done, but to expedite the delivery, when the natural efforts prove inadequate, and there is hazard that the woman may ſuffer from longer delay; this is the buſineſs of the accoucheur.

4. *Ruptured vagina.*—The *vagina*, in ſome inſtances, actually tears, either from the repeated bruiſes of the child's head in laborious labours, or when the preſſure has been ſo long continued, as to occaſion gangrene before delivery.

Lacerations of the *vagina*, from either cauſe, are frequently mortal.

The diſeaſe is readily diſcovered by the introduction of a finger within the *vagina*, and by the diſcharge of ſtools from the *os externum*.

When any uncommon accident ſupervenes upon delivery, or whenever there is reaſon, even from the ſymptoms of a ſmart ſoreneſs

foreneſs of the parts, heat, and excoriation from the urine, &c. to ſuſpect any injury, it is the duty of the midwife carefully to examine, both by the touch, and by inſpecting the parts, that the aſſiſtance of the ſurgeon may be early had recourſe to.

5. *Laceration of the orifice, neck, or body of the womb.*—In laborious labours the womb is expoſed not only to the hazard of inflammation, but of laceration alſo. When the thin edge of the orifice *only* is affected, it frequently heals without any other inconvenience, unleſs, from a coaleſcence of the ſides of the mouth of the womb, the woman be prevented in future from having children.

When the laceration extends to the neck or body of the womb, the conſequence is, almoſt, in every inſtance, fatal. Shiverings, faintings, or convulſions enſue, and the woman rarely ſurvives the third day after delivery.

Lacerations

Lacerations of the womb, ſometimes, though more rarely, happen merely from the awkward and unfavourable poſition of the child, eſpecially in thoſe caſes where the womb is much diſtended, as in caſes of very large children preſenting croſs, or in twins, triplets, &c. where the texture of the womb is weakened by exceſſive ſtretching, or from the unequal preſſure of the child.

Such accidents have alſo been often occaſioned by too early attempts to dilate the orifice of the *uterus*, with an intention of turning the child; or, by violent exertions in puſhing back the part of the child which preſents, that it may be turned; or by pulling down the limbs in an improper direction; or, by ignorantly endeavouring to pull down the body of the child, by paſſing a finger at the groin, when the breech preſents, before the womb be ſufficiently dilated; or, what is ſtill more inexcuſable, by the blunder of the practitioner miſtaking the

the ſhoulder for the breech, and pulling violently in that direction.

6. *Inverſion of the womb.*—The *uterus* is frequently inverted, in the manner already explained *. It is a common effect of raſhneſs and inexperience, and is generally attended with clammy ſweats, convulſions, and death. Of five inſtances, where this happened from the ignorance of the practitioner in hurrying the extraction of the *placenta*, one Lady only ſurvived the dreadful accident. Her recovery is the more extraordinary, as the womb could not be reſtored to its natural ſtate, and though replaced within the *vagina*, it ſtill continues *inverted*.

II.

Diſeaſes incident to the Child-bed ſtate.

The ſtate of child-bed women, in thoſe days in which luxury and diſſipation bear an

* See pag. 104.

an uncontrouled and univerſal ſway, is often precarious. This may indeed be reaſonably expected, when the plain and ſimple path of nature is forſaken; when ignorant practitioners ſo often officiouſly interfere, in ſpite of the fatal effects of their intruſions, and perſiſt in an erroneous treatment, in ſpite of ſo many awfully ſtriking admonitions.

The puerperal ſtate may be divided into three ſtages, each conſiſting of five days, and each ſtage requiring a different management. Of theſe the firſt merits our chief attention, for moſt of the dangerous diſeaſes in child-bed occur within the firſt five days; and, unleſs from ſome glaring irregularity or miſmanagement, thoſe commencing at a later period after delivery are ſeldom fatal.

Some refer the diſeaſes of child-bed women to three general ſources.

1*ſt*, The want of the uſual ſupport of the full womb.

2*dly*, Irregularities of the child-bed evacuation, called the *Lochia* or cleanſings.

3*dly*, The changes produced from the determination of milk to the breaſts, and its conſequences.

Without any regard to ſuch diſtinctions, we ſhall give a conciſe view of this ſubject, nearly in the order of time in which theſe complaints commonly occur.

Faintings.

Some women ſuffer a degree of faintneſs after the moſt natural and eaſy labour. A conſiderable preſſure is ſuddenly removed, a quantity of blood is ſuddenly evacuated, and there is often a quick tranſition from intolerable pain and anxiety of mind to a ſtate of eaſe, or even of tranſport. Either of theſe cauſes is ſufficient to account for a ſlight degree of faintneſs, which is of no long duration, never attended with any bad conſequence, and is readily removed by giving

giving now and then a little of any ſimple cordial, keeping up a free circulation of cool air about the woman, and when cold and wet, applying a warm dry folded compreſs of ſoft linen under her, till ſhe can be gently raiſed, properly ſhifted and dreſſed.

There is no hazard from faintings to be dreaded where the pulſe and breath are diſtinct and regular, where there is no uncommon coldneſs over the body, or of the extremities, no anxiety or palpitations, no exceſſive flooding, and where there is no ſuſpicion of any injury having been done to the womb, either from delivery or the extraction of the *placenta*.

In oppoſite circumſtances, the fainting is very dangerous; for the woman ſeldom ſurvives a few hours; a ſurgeon ſhould therefore be immediately called, and, in the mean time, let her be ſupported by giving warm cordials and light nouriſhment, while they can be ſwallowed; let actual warmth be promoted, by applying warm flannels to the breaſt, belly, and extremi-

ties,

ties, bottles with warm water to the feet, and uſing ſuch other methods as the judgment of the practitioner may ſuggeſt; but we ought to be exceedingly cautious of endeavouring to rouſe the woman by the application of volatiles to the noſe, as ſmelling ſalts, hartſhorn ſpirit, &c. according to the common practice; for, while ſhe is in a languid irritable ſtate, any ſtimulating ſubſtance raſhly ſnuffed up would endanger ſuffocation, or, by occaſioning violent coughing or ſneezing, might induce exceſſive flooding, which in a few minutes may be fatal.

Flooding.

Exceſſive floodings immediately after delivery, attended with faintings, feeble interrupted pulſe, and coldneſs of the extremities, are always dangerous, often mortal.

The moſt common cauſes of immoderate, or profuſe flooding after delivery, are,

1ſt,

1*ſt*, Improper treatment in time of labour, as overheating the woman with confined air, crouds of company, ſtimulating food, hot drinks with wine and ſpiceries, &c. 2*dly*, A very quick delivery. 3*dly*, Violence in extracting the *placenta*, as raſhly pulling by the rope before time has been given for the contraction of the *uterus*; or tearing the after-birth from the womb by pieces. 4*thly*, Want of contractile power in the womb from previous diſtention, as in caſe of twins, &c. or, from general weakneſs. 5*thly*, Agitation of the mind.

In ſituations ſo critical and alarming, there is no time for trifling; for either death advances with haſty ſtrides, or, if the woman ſurvives delivery a few hours, ſhe will afterwards be ſecure from future danger.

The danger, however, is not always to be eſtimated by the appearance of blood loſt, but by the ſymptoms, while the pulſe beats diſtinctly, while there are no faintings or coldneſs in the extremities, no hazard is

to

to be dreaded, however apparently alarming the flow of blood is. In oppoſite circumſtances the danger is proportionally great.

When there is hazard of flooding after delivery, the woman's belly ſhould be ſwathed pretty firm; ſhe ſhould be laid with her head low, in a horizontal poſture, kept very quiet and very cool, and an opiate ſhould be given to compoſe her ſpirits.

If the evacuation be exceſſive, no medicine can be relied on. It can only be checked by thoſe means which cool the body, retard the motion of the blood, promote the contraction of the *uterus*, and favour the diſpoſition of the blood to coagulate. With theſe views, a free and bold expoſure to the cold air, and cold applications to the *pubes* and *os externum*, are the moſt powerful, ſuch as ſtripping the woman almoſt naked, admitting the cold air from the door and windows to blow freely upon her, throwing cold water by ſurpriſe on the belly and *os externum*, and applying large thick folded compreſſes of linen dipped in cold vinegar

and

and water to the belly, *os externum*, and loins, which muſt be often renewed, as their *ſole virtue* conſiſts in their *coldneſs*.

Cold acidulated drink ſhould be given freely, and nothing of a cordial heating nature ought to be allowed, either with a view to recall the vital heat, or to rouſe the woman from that languor and faintneſs which are of ſo much ſervice in diminiſhing the force of the circulation, and giving time for the blood to coagulate, by which an immediate ſtop is put to the flooding.

When the woman is very weak, and much exhauſted, beef tea, chicken water, or any other light ſoup taken cold, hartſhorn gellies, ſago, or panada, with a ſmall proportion of Rheniſh or claret wine; and, in a word, ſuch food as affords nouriſhment without heating the body, or increaſing the motion of the blood, are the moſt proper.

If the method now mentioned ſhould fail, cold vinegar and water ſhould be thrown up into the *uterus* with a bag and pipe, and repeated often, till the womb by contracting diminiſhes

diminiſhes the diameters of the open veſſels, and by that means leſſens, or entirely puts a ſtop to, the flux.

When the woman bleeds profuſely, and the womb ſeems to have loſt its power of contraction, and if all other methods ſhould fail, one expedient may yet be employed, which is, for the operator to paſs the hand within the cavity of the *uterus*, and gently ſtimulate with the fingers, in order to promote its contraction.

If the womb be perceived to cloſe upon, or graſp the introduced hand, from that moment, the diameter of the blood-veſſels being leſſened, the bleeding will abate, and the woman will be reſcued from threatening death. But, if no ſuch effect be produced, ſhe will, unavoidably, very quickly die.

Such modes of practice, however, nothing but the extreme urgency of the caſe can, at any time, juſtify in a female practitioner.

After-

After-pains.

All pains of the belly, or parts contained in that cavity, coming on ſoon after delivery, are, by the ignorant or inattentive, indiſcriminately ſtiled *after-pains;* but it is of great conſequence, that pains occurring in the child-bed ſtate, be accurately diſtinguiſhed from each other.

After-pains, ſtrictly ſo called, are 'thoſe 'grinding pains occaſioned by the expulſion 'of clots of blood.' The blood eſcaping from the mouths of the blood-veſſels, chiefly at that part where the *placenta* adhered, is thrown down, in the form of clots, on the orifice of the *uterus.* From this ſtimulus it gradually opens, and a ſpaſmodic effort, ſomewhat ſimilar to what happens in real labour, is excited in the *uterus* till the grumous blood be expelled. The mouth of the womb then cloſes, and the woman is at eaſe, till the ſame effect be again pro-

duced from the ſame cauſe; ſo that the expulſion of theſe clots is occaſional.

Some women ſuffer much uneaſineſs from this circumſtance; but, as the pains ariſe from the ſlow contraction of the womb, giving an opportunity for a quantity of blood being collected in its cavity, they may either be entirely prevented, or moderated by a proper management of the labour, and particularly of the *placenta*. In a firſt child, or where time is given for the ſpontaneous contraction of the *uterus*, to ſeparate the *placenta*, after-pains ſeldom occur, or, at leaſt, are ſeldom troubleſome.

Frequent pregnancy and parturition impair the powers of contraction of the *uterus*; hence the oftener labour is repeated, the womb contracts the more ſlowly, blood is more liable to be lodged in its cavity, and therefore women muſt be more ſubject to after-pains.

After-pains are never dangerous, though ſometimes ſo ſevere as to reſemble thoſe of labour;

labour; and, in ſome irritable habits, are attended with a degree of fever, with nauſeating ſickneſs, or with vomiting. They come on, ſoon after delivery, and frequently continue leſs or more till the red *lochia* ceaſe.

They are mitigated or cured by whatever promotes the contraction of the *uterus*. Actual warmth gives relief, as dry warm flannels applied to the belly, or fomentations with wet flannel, or bladders half filled with warm water. If violent, an opiate ſhould be given, as thirty or thirty-five drops of laudanum, repeating it once in eight or twelve hours till eaſier; and the belly ſhould be kept open with emollient glyſters.

After-pains are ſometimes confounded or complicated with pains from irregular contraction of the womb, and with cholic, from wind in the bowels, which diſtends the belly, and occaſions a conſiderable degree of ſwelling. In both caſes, injections, with

with *aſſafoetida* and *laudanum* thrown into the *rectum*, often give immediate relief.

Inflammation of the womb.

It may occur at any time from delivery to the fifth day, though ſometimes it attacks at a later period.

It is attended with pains, not unlike thoſe of labour; and is diſtinguiſhed from after-pains by the pain being conſtant.

Its common cauſes are,

Difficult or tedious labour.

Artificial efforts to deliver the child or after-burthen.

An over hot regimen during labour or lying-in.

Cold, applied to the woman's body when in a free perſpiration, or admitted into the womb while the *lochia* flow.

But, the moſt frequent cauſe is the bruiſes which the womb ſuffers in laborious labours;

bours; for, when the *os uteri* dilates ſlowly, that part of the womb which is forcibly ſqueezed between the child's head and bones of the *pelvis* will be expoſed to the hazard of ſwelling, inflammation, and their conſequences.

Inflammation of the womb is generally preceded by a chillneſs or ſhivering, followed by intenſe heat, quick pulſe, and the other ſymptoms of fever. The pain is entirely confined to the region of the womb, and gives the ſenſation of fullneſs and weight, with frequently a burning heat and throbbing in the part. According to the particular part affected, the pain will be confined to the *pubes*, extend upwards towards the navel, in the direction of the ligaments; or, it will ſtrike backwards towards the gut, from the groin down one or both thighs; and, if that part of the womb connected with the bladder be the ſeat of the diſeaſe, it will conſtantly be attended

tended with pain, difficulty or ſuppreſſion of urine. If it occurs at the time the red *lochia* uſually flow, they will ſoon be ſenſibly diminiſhed, or the diſcharge will entirely ceaſe.

Every practitioner in midwifery ought to be informed, that "a fixed pain any "where about the under part of the belly, "coming on ſoon after delivery, eſpecially "after a tedious or painful labour, is an "alarming ſymptom, and indicates conſi-"derable danger." When it occurs later, as after the fifth day, there is leſs hazard. But, ſince the woman's recovery will depend much on proper management, the earlieſt opportunity ſhould be taken to put her under the care of a ſkillful ſurgeon.

Inflammation of the womb, like all other inflammations, often ends in the formation of matter, ſometimes in mortification; the latter is generally fatal, the firſt frequently ſo, as the paſſage for the matter is uncertain.

The

The principal remedies are, cooling regimen, a very mild, light diet, conſiſting chiefly of vegetables and fruit, plentiful dilution with cool, acid drinks; and an open belly, by means of very gentle laxative medicines, as cream of tartar and magneſia, lenitive electuary, or laxative glyſters; bleeding, when there is violent pain and much fever; and fomenting the belly, evening and morning, only avoiding applying the flannels too hot, or continuing them ſo long at once as to force out ſweats.

If, from the treatment now adviſed, an univerſal perſpiration appears on the ſurface, with a ſenſible remiſſion of the painful ſymptoms, there is reaſon to expect that the inflammation will ſoon be diſperſed, and the woman obtain a complete recovery. But if, notwithſtanding every treatment, the pain becomes more acute and throbbing, with a proportional increaſe of the feveriſh ſymptoms, if there is nauſeating ſickneſs, or frequent vomiting, along with watching, or threatening *delirium*, the inflam-

inflammation will then terminate either in ſuppuration or gangrene. The moſt favourable out-let, in caſe of ſuppuration, is by the *vagina*. When the matter is diſcharged in that way, which is known by its appearance on the cloths, a happy recovery may, generally, be expected. To prevent any bad conſequences from the acrimony of the diſcharge, warm water ſhould be frequently injected into the *vagina* and *uterus*, the Peruvian bark ſhould be given, in ſubſtance, three or four times a day, the woman ſhould be ſtrictly confined to a light vegetable and milk diet, ſhe ſhould ſit up as much as ſhe can, and take the earlieſt opportunity of uſing exerciſe, which is not only eſſential to the recovery of her general health, but for promoting the diſcharge of the matter.

When the matter is communicated to other parts, it is ſometimes diſcharged by an abſceſs in the groin. The cure in that caſe is a ſlow tedious proceſs, and a conſiderable lameneſs

lameneſs is often, for a long time, left behind.

Irregularities of the Lochia.

Theſe conſiſt either, *firſt*, in its exceſs; or, *ſecondly*, its deficiency.

The *lochia*, or cleanſings, is that evacuation which follows the delivery of the child and *placenta*. It is diſtinguiſhed by the names of bloody, and ſerous or watery *lochia*. The firſt is commonly called the *reds*, the latter, the *green waters*, though the term is improper; for it rather reſembles coffee grounds.

The *lochia* is nothing more than a diſcharge of blood from the veſſels which formerly opened into the cavity of the *uterus*, and chiefly at that part where the *placenta* adhered. Till the diameter of the veſſels be diminiſhed by the collapſe of the *uterus*, the fluid evacuated will be pure blood; but,

as the veſſels contract, the diſcharge will become more and more pale and watery, till, at laſt, it loſes the bloody appearance entirely.

Something like a ſlight degree of ſuppuration affects the internal ſurface of the womb, a few days after delivery, partly from the diſſolution or ſloughing of the membranes lining the womb, which is ſuppoſed to be caſt off along with the cleanſings, and perhaps alſo, partly from the acceſs of the air admitted into the *uterus*. In this way the purulent appearance of the ſerous *lochia*, or green waters, may be accounted for.

The bloody *lochia* will be in greater or leſs quantity, as the womb was formerly much diſtended, or the contrary, as it contracts quicker, or ſlower after delivery. The quantity will alſo depend much on the conſtitution of the woman, and ſtill more on the management of the *placenta*, ſo that no exact meaſure of the diſcharge can be laid down.

As

As much blood was prepared during pregnancy for the nouriſhment of the child, the draining of the *lochia* may be conſidered as a neceſſary evacuation, and in particular, where the flow of milk to the breaſt is to be diſcouraged. But there is nothing morbid or impure in the diſcharge, as was formerly imagined.

The recovery of the woman, however, does not, in general, depend on a great flow; for thoſe who have little, for the moſt part, recover as well as thoſe who have it in great quantity.

Experience even ſhows, that an exceſs of the *lochia*, by its debilitating effects, like any other profuſe evacuation, retards the recovery, and that ſuch women are more liable to weeds, and nervous complaints, than thoſe who have it in moderate quantity.

The red or bloody appearance commonly continues for four or five days, though, in general, it begins to change its colour after the third day; but, in ſome, the red colour

colour diſappears and recurs now and then, till the diſcharge entirely ceaſes, and the *uterus* be reduced to its original ſize and compactneſs, which, though, as already obſerved, is liable to conſiderable variety, according to management, and as the milk is encouraged or repelled, commonly requires from 18 days to the end of the month, when the courſes again appear, in thoſe who do not ſuckle, the uſual eſtabliſhment afterwards takes place, and the woman's health is confirmed.

From this view it is obvious, that the exceſs, or deficiency, of the *lochial* evacuation ought only to be conſidered and treated as a diſeaſe, when it is accompanied with morbid ſymptoms; for, in many caſes, nature ſupplies the deficiency, by increaſing the milk, or perſpirable matter, and corrects the exceſs by ſuppreſſing other evacuations.

1. *Redundant or exceſſive lochia.*—This conſtitutes what we call a *puerperal flooding*. When it occurs immediately after delivery, and

and is profuſe or exceſſive, it is then ſtrictly called a flooding, and often proves fatal. Its nature has already been explained, and the treatment directed under the article flooding*.

If the red *lochia* ſhould continue to flow beyond the ordinary time, though the quantity be not exceſſive, it is then ſaid to be *immoderate* or *redundant*.

The protracted duration, or immoderate diſcharge of the *lochia*, may proceed from debility, or a bad habit of body, and is often occaſioned by miſmanagement in time of labour, or after delivery, eſpecially by too early fatigue in the puerperal ſtate.

The treatment will depend chiefly on the cauſe, and muſt be regulated according to the conſtitution and particular circumſtances of the caſe. The chief object to be attended to is, to endeavour to brace the ſyſtem, and, by ſuitable regimen, to reſtore general health. The Peruvian bark is one of

* See pag. 316.

of the beſt remedies; it may be given in ſubſtance, or in decoction, and to each doſe fifteen drops of elixir of vitriol ſhould be added. In ſlight caſes, a doſe of the elixir of vitriol, three or four times a day, in a cup of roſe tea, will be ſufficient. But the treatment where there is any fault in the habit, or where the diſeaſe does not yield to ſimple remedies, is the province of the phyſician; for nervous or hyſteric complaints frequently accompany or follow exceſſive or interrupted diſcharges from the *uterus*.

2. *Deficient or obſtructed Lochia.*—At the menſtruating age, weakneſs of conſtitution very commonly occaſions retentions or obſtructions. In like manner, diſeaſes occurring in the puerperal ſtate very generally affect the *lochia*, though the effect is often miſtaken for the cauſe. It cannot, however, be denied, that obſtruction of the *lochia* is frequently an original diſeaſe, and when ſuddenly occaſioned by

cold,

cold, irregularities, paſſions, or miſmanagement, is attended with alarming ſymptoms and fever. In this caſe, a phyſician ſhould immediately be conſulted.

When the diſcharge is *purulent*, that is, having the appearance of matter like that diſcharged from a wound, or when the diſcharge has an offenſive ſmell, the midwife ſhould be very careful to direct the parts to be kept clean by bathing with a ſponge and warm water, or throwing it into the *vagina* twice or thrice a day with a bag and pipe. Very diſagreeable conſequences often enſue from the ſtagnation of the putrid *lochia* confined within the folds of the *vagina*, ſuch as inflammation, excoriation, or ſores, coalition of the mouth of the womb preventing the poſſibility of future conception; or even a coaleſcence, or growing together of the edges of the *labia*, *or externum*, *or vagina*.

Women in the lying-in ſtate ought to be very careful to keep theſe parts clean, by frequent bathing with a ſponge and warm water,

water, while the *lochia* continue to flow; and ſhould afterwards take a proper opportunity, when their health will permit, of applying cold water, or of uſing the cold bath when the ſeaſon and other circumſtances will admit of it.

The advantages of obſerving a ſcrupulous cleanlineſs at theſe times, and after *menſtruation*, though little attended to in this country, are ſufficiently obvious, and do not require any other arguments to enforce it.

The practice of ablution was firſt known among the antient Jews, and conſtituted a part of their religious ceremony. It was probably firſt ſuggeſted by delicacy, and afterwards eſtabliſhed on account of health. It ſtill prevails in the Eaſtern countries; and the *Biddeau* of the Italian and French Ladies deſerves the imitation of thoſe of Britain, who, in general, ſurpaſs moſt other nations in delicacy of ſentiment, if not in politeneſs of manners.

Determination

Determination of Fluids to the Breaſts and its Conſequences.

From the third to the fifth day after delivery is a very important period; for, in this interval, the red *lochia* ceaſe, and the diſcharge is only compenſated by the *milk*, which generally flows in full ſtreams. Diſeaſes may, therefore, ariſe from its being too full, or too ſparing.

Some women, eſpecially after a firſt delivery, notwithſtanding every precaution, are liable to complaints about the time of the acceſſion of milk to the breaſts.

When the colour of the *lochia* begins to change, pains in the lower part of the belly, like thoſe of painful menſtruation, come on, attended with a pretty ſmart fever; at laſt the breaſts become enormouſly diſtended, and occaſion the moſt violent pain, weight, and throbbing. This febrile commotion and painful tenſion continue from 24 to 36 hours, and are commonly terminated by a critical ſweat, looſeneſs, or a free

diſcharge of the accumulated fluid from the nipples.

Women of a ſound conſtitution, who ſuckle their children, who have good nipples, and apply the child to the breaſt early, either eſcape the milk fever entirely, or have it in a very ſlight degree. But thoſe who are unwilling, or unable to attend to thoſe circumſtances, are ſubject to milk fever, to the conſequences of the confinement and accumulation of that fluid, and to inflammation and ſuppuration of the breaſts.

The management of the breaſts will be very different as the woman propoſes to give ſuck, or to diſcourage the milk prepared.

In the former caſe, the child ſhould be put to the breaſt, generally, within 24 hours from delivery; and, as the great object is to promote a gradual acceſſion, and guard againſt the inconveniencies of a ſudden flow and exceſſive diſtention, the attempts at firſt ought not to be carried far at once, nor often repeated. While the breaſts are

ſmall

ſmall and flaccid, there will be little neceſſity, either of having very early recourſe to ſuction by the child, or of repeating it very frequently. But all this muſt be regulated by the health of the woman, by her conſtitution, by the nature of her delivery, and by thoſe appearances which uſually precede the coming of the milk.

In ſome women the nipples are ſo much drawn in and buried in the ſubſtance of the breaſt, that conſiderable force is neceſſary to draw them out and preſerve them, ſo as to enable the woman to give ſuck. This may frequently be done by glaſſes of various kinds, or by ſuction by the mouth of a young child accuſtomed to ſuck, of an adult, or, ſometimes, of young puppies.

If the particular ſituation and circumſtances of the mother, her ſtate of health, or any defect in the breaſts or nipples, ſhould prevent her from ſuckling the child, ſhe muſt endeavour to repreſs her milk with as little inconvenience to herſelf as poſſible.

Diſcutient

Diſcutient applications are now out of uſe; and the modern method of drawing the breaſts for ſome time, frequently produces inflammation in them, and weeds, from the fatigue. When the milk is to be diſcouraged, little more ſeems to be neceſſary than to regulate the regimen, by directing, for a few days, till the troubleſome ſymptoms be removed, an abſtemious diet, with little drink; keeping the belly gently open, rubbing warm oil on the breaſts two or three times a day, (as mentioned under the treatment of lying-in-women), and letting the milk go back into the circulation, to be carried off by the common outlets; or permitting it to be ſpontaneouſly evacuated by the pores of the nipple, without teazing the woman, or fretting the parts, by any unnatural coercive means of promoting it.

The ſtructure of the breaſts of women is more nice, more delicate, and more complicated than in any other claſs of animals.

The

The numerous lactiferous tubes, or milk veſſels, at laſt terminate in ten or twelve, which perforate the nipple, forming as many apertures or pores, from whence the milk flows out in as many diſtinct ſtreams. From this conſtruction, and the convoluted direction of the veſſels, ſo different from that of other animals, for, in brutes, they are larger and more ſtrait, the milk cannot eaſily flow involuntarily, and the breaſts are ſubject to many diſeaſes.

In the lying-in ſtate, a ſudden acceſſion of fluids to the breaſts, its ſudden repulſion, improper attempts by coercive efforts to draw out the nipples, or the ſtagnation of the accumulated fluid, after it is ſecreted, prove a frequent cauſe of fever, with inflammation, and of tumour and ſuppuration in the part affected.

The painful diſtention of the breaſts, and milk-fever, with which it is attended, ſeldom continue above thirty-ſix or forty-eight hours; but, if it ſhould be protracted beyond that period, and the ſymptoms be violent,

violent, the caſe is alarming, and requires the immediate attention of a ſkillful practitioner; for the moſt dangerous fevers incident to the lying-in ſtate frequently commence about that period.

The ſymptoms, when ſlight, will, for the moſt part, yield to the ſimple treatment of fomenting the breaſts twice or thrice a day with flannels ſqueezed out of warm water, or a decoction of chamomile flowers, afterwards rubbing warm olive oil on the part affected, and covering it with ſoft flannel or fur. If this ſhould happen while giving ſuck, the breaſt ſhould be emptied by frequent ſuction; a ſpare cooling diet ſhould be uſed, and the belly kept moderately open. The nipples ſhould alſo be bathed now and then with warm water, leſt the milk be prevented from flowing, by the obſtruction of the terminating pores of the milk veſſels; and, the nipples ſhould be gently drawn out by proper glaſſes.

But

But, if the ſwelling and inflammation increaſe, along with hardneſs, pain, heat, throbbing, and fever, a ſoft poultice of bread and milk, or of lintſeed, which in ſome caſes may be preferable, muſt be applied, ſufficiently large to cover the affected part. The breaſt ſhould be ſupported by a handkerchief, ſuſpended from the neck, and the poultice ought to be renewed as often as it may be ſuppoſed to be cold, as three or four times a day, when the ſeaſon or nature of the weather require.

If the inflammation can be diſperſed, the poultice is the moſt proper mode of fomentation for that purpoſe. If not, it is the beſt means of promoting ſuppuration. The ſore may afterwards be dreſſed with a ſoft pledgit of baſilicon, or ſpermaceti ointment, ſpread on ſharpee; and while pain, inflammation, or hardneſs continue, the poultice ſhould ſtill be applied.

Abſceſſes of the breaſt are of two kinds, thoſe that are ſeated deep in the glandular ſubſtance

ſubſtance of the breaſt, and thoſe that are more ſuperficial.

1. The former are tedious in their progreſs to ſuppuration, exceedingly painful, and attended with a conſiderable degree of fever, which often impairs the conſtitution, and leaves great debility for a long time after it.

The fever muſt be checked by the moſt cooling methods, and the woman may be ſaved much pain by opening the tumour early; but this is the ſurgeon's buſineſs. It muſt not, however, be concealed, that ſuppurations often return in other parts of the breaſt, two or three different times.

2. The latter ſoon come to ſuppuration; as, in a few days, the ſymptoms are proportionally milder; the woman ſuffers no great inconvenience, and commonly ſuckles her child during the cure; for the abſceſs burſts ſpontaneouſly, the matter obtains a free exite, and the ſore heals kindly.

Sore

Sore Nipples.

Nurſes are ſometimes ſubject to ſore nipples. Many women ſuffer ſo much from this complaint as to oblige them to relinquiſh nurſing, though otherwiſe well qualified for it.

Sore nipples are of two kinds, either, 1*ſt*, a ſimple excoriation, a kind of ſponginеſs or rawneſs of the part; or,

2*dly*, Deep ulcers, called fiſſures or chops.

The nipples are a compoſition of nervous filments, of a ſpungy texture, and covered over with a very fine delicate ſkin. Round the *baſis* of the nipple is a circular diſk, beſet with a number of ſmall glands, whoſe uſe is to furniſh a quantity of viſcid mucus, or ſmear, which protects the ſkin from being ſcalded by the friction and moiſture to which it is expoſed in giving ſuck.

From this ſtructure, it is evident that inflammation, excoriation, and ulceration, or fiſſure, will frequently occur, eſpecially in women of a delicate texture; and when the diſeaſe once commences, it is difficult to ſtop its progreſs; for the tender ſtate of the parts being continually kept up by the friction of the child's mouth in ſucking, and the acrimony of the milk, renders every remedy ineffectual for ſome time, and expoſes the woman to the greateſt diſtreſs.

Women are chiefly ſubject to ſore nipples in their firſt or ſecond child, leſs ſo in future, becauſe the nipples loſe much of their ſenſibility by uſe. It is the action of the child's mouth which occaſions it; therefore, taking the child from the breaſt, or ſaving the nipples, by firſt favouring the one, then the other, is the moſt certain method of obtaining a cure. The nipples may be favoured by procuring the aſſiſtance of a nurſe to ſuckle the child all night, and thus leſſening the fatigue to the mother till they become leſs ſenſible.

In

In the firſt ſpecies of the diſeaſe, where there is only a ſimple eroſion, or excoriation from the irritation of ſucking, and perpetual moiſture, little more is neceſſary than to keep the nipple as dry as poſſible, and waſh the excoriated part frequently with any gently drying or aſtringent lotion, as brandy ſuitably diluted, alum water, a weak ſolution of ſugar of lead in roſe water, or an infuſion of Japonic earth in boiling water. The milk ought to be prevented from running out by applying broad pap glaſſes, which alſo anſwer the purpoſe of drawing out the nipple. Or, to preſerve the nipples when drawn out, and prevent their retracting, rings of wax, ivory, box-wood, or of lead, may be employed. They ſhould be ſo conſtructed as to allow the nipple to protrude through them. Thoſe of lead, which are commonly uſed in this country, are well adapted for keeping the nipples cool, as well as prominent, and defending them from injury from the woman's linens.

2dly,

2*dly*, Deep ulcerations, or fiſſures, ſometimes attack the nipples, and if the woman perſiſts in giving ſuck, the whole ſubſtance of the nipple may at laſt be deſtroyed. This ſpecies of the diſeaſe is much more difficult of cure than the former. Every remedy frequently fails, and there is no infallible cure but to remove the child from the breaſt.

A complete, or palliative cure may be attempted by favouring the diſeaſed breaſt as much as poſſible, by ſupplying the want of the natural ſmear, when the part is dry and inflamed, with rubbing cream, or a ſoftening liniment with oil of almonds and ſperma ceti before the child is put to the breaſt; and, by ſuitable dreſſing applied to the ſores.

Theſe ſores or fiſſures require a very particular management, and in many caſes, where the mother is anxious to ſuckle her child, and a cure cannot be ſoon obtained, the diſeaſe may be rendered ſupportable, and the pain conſiderably leſſened, by proper

per dreſſings, till time gives a more favourable turn, and leſſens the ſenſibility of the parts.

The art of dreſſing conſiſts in applying a ſmall ſtrip of ſharpee, wet in the aſtringent lotion, to the fiſſures or chops; then covering the whole with a pledgit of a cooling ſoft liniment compoſed of white wax, ſperma ceti and oil of almonds, or the common ſperma-ceti-ointment. The dreſſing ſhould be continued as long as poſſible, only removing it two or three times a day, and gently waſhing the part with luke-warm milk and water, ſoftly poured from a ſmall tea or milk-pot, before the child be allowed to ſuck.

Women who have been ſubject to ſore nipples, ſhould endeavour to harden the nipple in future, and thus prevent a return of that diſtreſſing complaint. For this purpoſe, they ſhould uſe aſtringent applications to the parts for ſeveral weeks before delivery, as cloths dipped in alum water, in ſtrong ſpirits, or in the brine of ſalted meat

boiled

boiled up, which many recommend as an infallible ſpecific for the purpoſe.

When little ſores appear in the ſurrounding brown circle or diſk of the nipple, and correſpond with ſimilar appearances in the child's mouth, or other parts of the body, as copper-coloured ſpots or blotches about the private parts of the child, a ſurgeon ſhould be immediately called in. The caſe is the more alarming, if hard ſwellings in the glands of the nurſe's arm-pits have already begun to appear.

Fevers of Lying-in-women.

In the pregnant ſtate, the courſe of the blood is much enlarged, the heart and arteries generally act with increaſed ſtrength, the blood has a buffy coat, and the coagulable part is leſs firm. From the preſſure of the womb, in the advanced months, the belly

belly is alſo bound, which gives occaſion to the abſorption of much putrid matter. From theſe circumſtances, the nature of the fluids is ſomewhat altered, and the ſyſtem rendered more ready to be affected by any occaſional cauſe.

In this ſtate, labour commences, the womb is ſuddenly emptied, an enormous preſſure is removed, the blood again takes a new courſe; and, from theſe frequent changes of determination, added to the natural delicacy of females, there appears a great ſhare of irritability, or a tendency to be affected by the ſlighteſt cauſes. Vulgar prejudice has, on theſe occaſions, introduced a moſt unnatural and abſurd method of treatment; for, during labour, the woman is generally ſupported with cordials of the moſt heating and inflammatory kind, the room is kept quite cloſe, with a number of people crouded in it, great fires, &c. After delivery, ſhe is covered up with clothes, laid in a horizontal poſture, on a ſoft bed, with the curtains cloſe drawn,

and

and kept in a ſweat; by this means the putreſcent *effluvia* from the ſurface are retained; and, from the neglect of frequently ſhifting the linens, ſkirt, and clothes, the *lochia* ſtagnating about the *vagina* turn putrid, and are, in that ſtate, abſorbed, that is, carried back into the ſyſtem.

From all theſe cauſes, conſiderable debility is induced, and a diſpoſition to fever and to take cold, from the ſlighteſt cauſes. Theſe are the moſt probable cauſes of the feveriſh diſorders which occur in the lying-in ſtate, and which might, generally, be prevented, by a proper management during pregnancy, and after delivery; but, when once commenced, they, with difficulty, yield to the moſt approved treatment. For every ſmart fever, occurring a few days after delivery, preceded by ſhiverings, followed by intenſe dry burning heat, and not relieved in thirty-ſix or forty-eight hours, by a plentiful flow of milk or *lochia*, or by an univerſal moderate ſweat, is extremely

tremely alarming, and always indicates great danger.

Fevers, in child-bed-women, aſſume a variety of appearances, in the beginning; ſome of the ſymptoms are ſo ſimilar, that they frequently reſemble each other, and they are with difficulty diſtinguiſhed; but the diſtinction is of ſo much conſequence in directing the proper treatment, that the life of the woman often depends upon it. The knowledge and treatment of theſe fevers, except thoſe ſlight affections, called weeds, or ſuch as coincide with the time of the milk, are entirely out of the line of female practice.

We have already mentioned inflammation of the womb and milk fever; ſo that we proceed to treat of the *weed*, the *miliary*, and the *child-bed-fever*.

Of the Weed.

Weeds—are fevers in the child-bed ſtate, occaſioned by miſmanagement, or accidents, which, at other times, might be inſufficient to produce fever, but which the very irritable ſtate of women *then* renders important. They differ from other fevers, alſo by the violence and duration of the cold fit, and are generally terminated in twenty-four hours; for they ſeldom continue leſs than eighteen, or more than thirty-ſix hours.

Women are chiefly diſpoſed to weeds from too great evacuations, or too early fatigue; but they are immediately brought on by paſſions, cold, or irregular diet.

They are ſeldom dangerous, but leave the woman liable to future attacks.

We ſhall direct the cure in the order of the ſymptoms.

1. In

1. In the cold fit we muſt endeavour to warm the patient, but ſhould avoid an overload of clothes, or the uſe of cordials and ſpirits; for the hot fit is the common conſequence, and their united effects may be violent *delirium*, or a more obſtinate fever. Diluent drinks, moderately warm, ſhould be freely drank, ſuch as orange whey, with or without wine, according to circumſtances, barley-water, gruel, cow-milk whey, and the like. If the trembling ſhould be violent, warm flannels may be applied to the ſtomach, belly, and feet, or bottles with warm water to the latter. No real advantage can be derived from oppreſſing the woman with an additional load of blankets; theſe are, in fact, of little uſe in promoting warmneſs; but, from their great weight, frequently bring on or increaſe the troubleſome ſymptom of difficult or oppreſſed reſpiration. If at any time they may be thought neceſſary, they ſhould be confined to the legs and feet only, and even theſe, and every other means of promoting heat,

heat, ought to be removed the moment the febrile heat commences; for with it the former ſtage terminates, and the method of management muſt then be altered; for,

2*dly*, During the hot fit the drinks ſhould be given, if not chilly cold, at leaſt not ſenſibly warm; and every endeavour ſhould be employed to promote that natural eaſy perſpiration, on which the *criſis* of the diſeaſe depends. This is chiefly to be done, not by an overheated air and regimen, or by ſtimulating drinks and medicine, but by a ſtrictly cooling regimen, by plentiful dilution with cool drinks, and promoting a free circulation of cool air. With this view, draughts of cold ſpring water may be given with the utmoſt ſafety, the woman ſhould be lightly covered with bedclothes, and her arms may be freely expoſed without them. When the febrile heat is exceſſive, and the celerity of pulſe in proportion, ſweat, or perſpiration is with difficulty excited, and there is great hazard of topical inflammation affecting the brain,

or

or ſome of thoſe parts eſſential to life, or of the fever terminating in hardneſs and inflammation of the breaſts. To bring on that univerſal ſweat, or gentle perſpiration by which the weed is to be cured, and its bad effects prevented, it is abſolutely neceſſary to leſſen the animal heat and frequency of pulſe, which can only be done by a ſtrict obſervance of the cooling regimen. For this purpoſe, the ſaline, or the nitrous mixture, are the beſt remedies, and cold drinks and cool air, along with ripe fruit, the moſt proper cordials.

From this treatment the moſt beneficial conſequences may be expected; the dry burning heat and drought will gradually abate, the quickneſs of the pulſe will be greatly leſſened, a gentle breathing perſpiration will then appear over the ſurface, the patient will be immediately relieved from the uneaſy ſenſation ſhe laboured under in the two former ſtages of the diſeaſe, and, under proper management, will ſoon recover perfect health. But,

3*dly*,

3*dly*, In this laſt ſtage much will depend on a careful and judicious management; in many inſtances, even the life of the woman. The degree and duration of the ſweating muſt be proportioned to the nature of the diſeaſe, conſtitution, and particular circumſtances; for, if it be protracted too long, or too ſuddenly or imprudently checked, the effects may be alike hazardous. It ſhould conſtantly be remembered, that, in child-bed-women, exceſſive, or long continued evacuations, are always dangerous, and that, from too much ſweating, nervous complaints and miliary fevers often ariſe; if, therefore, after about eight hours, the ſweat ſhould not ſtop, or continue very moderate, we ſhould give drink in ſmaller quantity, leſs warm, and leſs often, ſhift the body-clothes and bed-linens, and ſubſtitute dry, well aired, but not warm toaſted clothes in their place.

During the cure, food ſhould be given cautiouſly; that which is light and of eaſy digeſtion is the moſt proper. But, where

a diſpoſition to nervous irritability evidently prevails, and in thoſe accuſtomed to a rich, full diet, it ſhould be proportionally more ſolid and nutritious; along with which the moderate uſe of wine is neceſſary, and the Peruvian bark as a ſtrengthener ſhould be afterwards given.

Coſtiveneſs ſhould be obviated by means of emollient and gently laxative glyſters.

If nauſeating ſickneſs or vomiting occur, in any ſtate of the diſeaſe; or if, from the hiſtory of the caſe, there may be reaſon to ſuſpect that the ſtomach is diſordered from ſurfeit or improper food, which frequently bring on weeds, gentle vomits, ſmall doſes of rhubarb, and a light ſpare diet, are the beſt remedies.

In the irritable ſtate of child-bed women, paſſions of the mind prove a frequent cauſe of weeds. Opiates are then the beſt remedies, and which are alſo uſeful for promoting a gentle ſweat.

Many women are ſubject to weeds from interruptions in their nights reſt by the fatigue

tigue of ſuckling the child; the means of curing or preventing which are ſufficiently obvious, for ſuch women are very unfit for the office of nurſing.

Miliary Fever.

The miliary fever frequently occurs in the lying-in ſtate; it is then attended with the moſt violent and alarming ſymptoms, and indicates conſiderable danger.

The miliary fever may be defined 'a fever attended with conſiderable anxiety, 'generally terminated by the appearance 'of red ſpots, with or without a whitiſh 'veſicle on the top, the immediate eruption 'of which is ſhewn by a ſour ſmell and 'pricking of the ſkin.'

It is confined to no ſtated period after delivery, and is generally preceded with a ſlight degree of chilline ſs. The pulſe is at firſt

firſt ſmall and creeping, the extremities are cold, the ſkin is pale, the eyes are remarkably dull, the patient is gloomy and dejected, the ſleep is diſturbed with frightful dreams, the urine is pale and watery; and, it is only after the ſecond, third, or fourth day, that the ſymptoms mentioned in the latter part of the definition come on. But, however ſlightly it has begun, the debility and anxiety ſoon ariſe to a conſiderable height; *then* the pulſe begins to grow fuller, a ſudden and violent ſweat comes on, the acid ſmell, prickings of the ſkin, and, at laſt, the eruption.

The eruptions are generally confined to the neck, breaſt, and arms; more rarely the face is affected; but they ſoon ſpread over the greateſt part of the body.

The duration of the eruption is uncertain, though it uſually continues three, four, or five days, and a conſiderable debility is always left behind after the eruption and feveriſh ſymptoms are gone.

Miliary eruptions are of two kinds, white, when the puſtules are filled with a whitiſh fluid, and, when red, commonly diſtinguiſhed by the name of *Ruſh*. From the reſemblance of the puſtules to the millet-ſeed, they obtained the name of *Miliary*.

It is much diſputed whether the diſeaſe be original, like the ſmall-pox, for example, or ſymptomatic; for many people never ſweat without a ſlight eruption appearing. It is unqueſtionably of the latter kind in child-bed-women, and appears to be the conſequence of a hot regimen; for it is generally very certainly prevented by an oppoſite courſe.

Child-bed women, we have ſhewn, are much prediſpoſed to putrid diſeaſes; if in that ſtate a ſweat is urged, the putrid matter exiſting in the ſyſtem will be driven to the ſurface, and, when the quantity is unuſually larger, and the quality preternaturally acrid, it will not only be poured out in a greater quantity than the pores of the outer ſkin can admit to paſs, but ſtagnating under

under it will induce an inflammation and eruption.

The diſeaſe, in its mildeſt ſtate, appears to be of a nervous or putrid nature, and the danger will be according to the former management of the woman, the number of the puſtules, and the preſent ſymptoms. The danger is increaſed, as the diſeaſe is complicated with other complaints; when the eruption ſtrikes in ſuddenly; or, when relapſes become frequent; for, in ſome inſtances, as one crop of puſtules diſappears, another, after ſome interval, is produced, even to the third or fourth ſucceſſion.

The nature of this diſeaſe, till lately, has been little known, and is ſtill in ſome degree undetermined, even among phyſicians. Its cauſe has been as little underſtood. We have given a conciſe hiſtory of the eruptive fever, as it chiefly occurs in child-bed-women, and enumerated the moſt remarkable ſymptoms, becauſe it is probably to be prevented entirely by proper management; but when, by imprudent treatment, it has been

been brought on, the ſituation of the woman is exceedingly critical, and all the attention of the moſt ſkillful practitioner will be neceſſary to direct a proper treatment, and prevent the threatening conſequences.

The means of cure will be very different in different conſtitutions, in different circumſtances, according to the former habit and ſtate of the patient, and the occaſional cauſe of the diſeaſe; ſome variety of treatment will alſo be indicated in different ſtages of the diſeaſe.

During the anxiety, we muſt aſſiſt the operations of nature, and endeavour,

1ſt, To open the ſeveral excretories, particularly thoſe of the ſkin. But, after the eruption appears, we muſt next endeavour,

2dly, To regulate the determination, and carry it on as ſlowly as poſſible.

1ſt, The remedies uſually employed in the former of theſe ſtates, are vomits, bleeding, laxatives, and fomentations.

The effects of vomiting in determining to the ſurface are well known.

Bleeding

Bleeding is a dangerous remedy, and, except in very particular circumſtances, ſhould never be practiſed.

Gentle laxatives are very uſeful; for, in the beginning of the diſeaſe, there ſeems to be an almoſt total ſtoppage of the ſeveral excretories.

Fomentations, in ſome caſes, are of ſervice, eſpecially when the eruption ſuddenly recedes, or any degree of *delirium* threatens. The method generally practiſed of applying flannels wrung out of warm water to the legs and thighs, is preferable to any other. But they muſt not be uſed too hot, nor continued ſo long as to force out profuſe ſweats.

2*dly*, When the eruption appears, the pulſe becomes more full and ſtrong, ſo that the cooling regimen is moſt proper. The nitrous mixture, cool acid drinks, a light diet, ripe fruit, &c. and particularly a free application of cool air, will then be neceſſary. But, if the woman has been kept very hot before, the change ſhould be gradually

dually made, till the degree of heat be much moderated.

When there is great debility from frequent attacks, or when putrid ſymptoms come on, the Peruvian bark and a more nouriſhing diet, with the moderate uſe of wine, will be neceſſary.

If, from neglect or miſmanagement, the eruption ſuddenly ſtrikes in, the firſt indication will again be neceſſary, and proper cordials may occaſionally be given.

Puerperal, or Child-bed Fever.

A fever ſuppoſed to be peculiar to the child-bed ſtate ſometimes occurs; its particular nature, till very lately, has been little underſtood, and, of conſequence, the treatment improperly directed.

It is called *puerperal* or *child-bed-fever*, by ſome *lochial fever*, and has been confounded with inflammation of the womb

and

and adjacent parts, with obſtructions of the *lochia*, with the milk fever, miliary fever, and with after-pains. From all which, however, it appears to be perfectly diſtinct.

"The child-bed-fever generally comes "on about the ſecond or third day after "delivery, attended with conſiderable de- "bility, a ſoreneſs of the head, chiefly "confined to the fore-head, and frequent- "ly with vomiting;" though it more commonly occurs about the evening of the ſecond day, it, in ſome inſtances, comes on ſo late as the fifth or ſixth day.

This definition will diſtinguiſh it from every child-bed diſeaſe, except, perhaps, the miliary fever; the nature of which, in doubtful caſes, will be ſoon apparent from the particular anxiety which precedes miliary eruptions, the pricking of the ſkin, the peculiar ſmell, and, afterwards, the eruption itſelf.

The child-bed-fever is generally, though not conſtantly, preceded with a ſhort *rigor* or chilline ſs. This is ſucceeded by a hot

fit,

ſit, and frequently a free perſpiration enſues, which *ſeems* to relieve all the ſymptoms; but it is often a deluſive appearance; for a ſecond attack ſoon comes on, and the ſlight remiſſion is only a prelude to a violent increaſe of the former ſymptoms.

The milk ſoon abates, and is at laſt ſtopped; the breaſts are flaccid; but, in ſome inſtances, the ſecretion of the milk has been little affected. The *lochial* diſcharge is ſometimes deficient, and what flows is remarkably foetid. But it is frequently little altered either in quantity or quality. The belly ſwells, and is ſometimes ſo exquiſitely acute, that the weight of the bedclothes can ſcarcely be ſuffered.

Sickneſs, and complaints in the ſtomach and bowels either occur in the beginning, or about the ſecond or third day, and are ſoon after followed with frequent copious putrid ſtools.

The duration of the diſeaſe is various; it has, in ſome inſtances, proved fatal in a

few

few days; but the eleventh day is moſt frequently critical.

The immediate cauſe of this fever is ſtill involved in much obſcurity. It frequently occurs after the moſt eaſy and natural delivery, and where no particular cauſe can be aſſigned.

The moſt common occaſional cauſes, probably, are improper management during pregnancy, in time of labour, and after delivery.

I think it probable that the puerperal fever, though ſomewhat peculiar in its appearances, is not entirely confined to child-bed-women, but may, and does, from time to time, occur, independent of that ſtate.

The particular circumſtances of child-bed women, it muſt, however, be acknowledged, render them ſubject to fevers of a putrid nature, and their ſituation, and improper manner of management, are ſufficient to account for the variations.

The child-bed-fever is remarkably infectious; and, when epidemic, capable of

being propagated from one perſon in the puerperal ſtate to another, and its event is generally ſo fatal, that, like the plague, few eſcape of thoſe affected.

Fortunately, it is little known in this country, but in public hoſpitals, and where a number of women are crouded together. It raged in the public hoſpitals of Paris, London, and Dublin, communicating from one perſon to another with aſtoniſhing rapidity, and its ravages were equally ſtriking. In the year 1774, it appeared in the lying-in-ward of the Edinburgh Infirmary, and its event, in moſt caſes, was fatal. But it has never occurred there ſince, and is very little known in private practice.

If any means can prevent it, they will chiefly conſiſt in a ſtrict obſervance of cooling regimen, free air, and cleanlineſs, as particularly pointed our under the management of lying-in-women.

When the diſeaſe ſhews its preſence, we muſt proceed in the treatment on the general principles of putrid fevers. The putrid tendency

tendency muſt be corrected, the exertions of Nature, in her endeavours to evacuate the morbid matter muſt be gently aſſiſted, and the ſtrength of the patient ſupported.

It is needleſs to add, that, in ſuch caſes, the ſkill and experience of the moſt ſagacious phyſician will often be inſufficient to direct a ſucceſsful treatment.

Having explained the nature of conception and pregnancy, conciſely pointed out thoſe cauſes which, in the unimpregnated ſtate may prevent conception, or, in the pregnant, influence delivery; having directed how to deliver the child in natural, eaſy, and in lingering and preternatural labours, as far as it is the province of female practitioners; and how to manage the mother after delivery; we might here conclude. But, as this work might have been deemed imperfect, had we omitted thoſe directions ſo neceſſary for the treatment of the mother, and which are ſo eſſential for her preſervation, ſince it is much

much eaſier to prevent than to cure, it may yet be thought incomplete, if we ſhould leave the child, without that attention which the extreme delicacy of new-born infants, and the accidents to which they are ſubject, demand. A few directions, with theſe views, are, therefore, ſubjoined.

MANAGE-

MANAGEMENT OF NEW-BORN INFANTS.

The experience of WOMEN, from their more conſtant attendance on children, fully informs them of the *helpleſs ſtate of infancy*. That keen ſenſibility, by which light and noiſe, when ſudden, or when their violence is very little increaſed, become not only diſtreſſing but injurious, is the frequent ſubject of *their* obſervation. They ſee, too, that the tenderneſs of the ſkin ſubjects children to the fretting of wet clothes; that accidental moiſture ſoon brings on colds and croups; that the ſlighteſt indigeſtions may induce dangerous cholics and dreadful convulſions.

It is an uſeleſs taſk, therefore, to ſpend the little ſpace which remains in general obſervations on this ſubject, and perhaps equally

qually ſuperfluous at this time, to attempt to ſhew that the mortality of infants, which aſtoniſhes and diſtreſſes every humane and intelligent inquirer, has, in a great degree, ariſen from miſtaken views.

Though, however, there are ſeveral deficiences reſulting from the natural ſtate of infancy, which require attention, leſt they prove the ſource of diſeaſe, theſe are compenſated by many advantages which children poſſeſs over adults; and it only requires care and attention to guard againſt thoſe inconveniences to which the extreme delicacy and irritability of children expoſe them.

As it is not leſs the object of the practice of phyſic to prevent than to cure diſeaſes, we ſhall firſt conſider thoſe articles of management which the extreme delicacy of children require, and then give a ſhort detail of the particular diſeaſes.

I.

I.

Children, though born in a healthy ſtate, require an early attention to

1. Cleanlineſs,
2. Clothing,
3. The evacuation of the excrementitious matter contained in the inteſtines,
4. Nutrition,
5. Air, exerciſe, &c.

1. *Cleanlineſs.*—Children are generally born with their bodies covered with a quantity of ſlimy glutinous matter, which forms a ſcurf over the ſurface. This is nothing more than the ſediment of the waters with which the child was ſurrounded while contained in the womb. It adheres moſt tenaciouſly about the hairy ſcalp, neck, arm-pits, and groins, and ought to be cautiouſly removed before the child be dreſſed. Some uſe plain ſpirits for the purpoſe.

poſe. In many countries warm wine and water is employed; others prepare a waſh of warm ſmall beer with butter, or rub a little butter or pomatum where it is thickeſt, and afterwards remove it by waſhing with warm water. But it is of little conſequence, whether it be entirely taken off the firſt day or not; the delicate ſkin may be readily inflamed or fretted, if theſe attempts be carried too far. The furring becoming dry, and forming a kind of cruſt, will eaſily be removed by the next or ſubſequent waſhing, or by gently wiping with a ſoft linen cloth. A little ſoap, diſſolved in warm water, is perhaps preferable to any other waſh, when the matter is viſcid and adheſive.

It is alſo a common practice, in this country, to continue rubbing the child's head and body with ſpirits every day for ſome time, from the idea that it ſtrengthens. But there is no ſuch virtue in ſpirits. The child's body is porous, and abſorbs part of the ſpirits; hence effects may be produced clearly

nearly the ſame as if taken into the ſtomach. Beſides, the ſpirits frequently running down from the child's head, get into the eyes, and occaſion painful inflammation and its conſequences.

Children ſhould be regularly waſhed every day, from their birth till they be ſeveral years old. After the firſt week, the water ſhould be uſed cold from the ſpring; and the ſame practice ought to be continued ſummer and winter. A pail ſhould be provided for the purpoſe; and the child ought to be boldly plunged every morning over head and ears, for two or three times.

To this practice, ſo friendly to health, may be aſcribed that vigour and robuſtneſs of conſtitution peculiar to thoſe children who are early inured to it.

Cold-bathing cleanſes the ſkin from many impurities, which are the foundation of cutaneous, and other diſeaſes, in children, braces and invigorates the ſyſtem, ſupplies the place of exerciſe in early infancy, prevents colds, and is the moſt power-

ful preſervative againſt rickets, and all thoſe diſeaſes ariſing from a relaxed weakly conſtitution.

2. *Clothing.*—The clothing of new-born children ſhould be light and ſimple, and ſuitably adapted to the climate and ſeaſon.

The ſudden change which the child ſuffers from a warm moiſt confined ſituation, to a free open airy expoſure, muſt give ſome pain to an irritable frame. Analogy, as well as experience, ſhew the propriety of warmneſs at firſt, and of bringing the child to a thinner, lighter clothing by degrees. The dreſs ſhould be prepared in ſuch a manner, that it may be eaſily and readily applied. All ſtricture by rollers and ſwathing ſhould be carefully avoided; the child ſhould be left perfectly at eaſe, and have free liberty to move and ſtretch its little limbs at pleaſure. The reſtraint of tight preſſure muſt not only be painful, but hazardous: By that means the circulation is interrupted, a ſudden check is given to the

growth

growth in ſome parts, and an improper direction in others. Happily ſuch bonds and ligatures, as there was formerly too much reaſon to complain of, have now, in poliſhed life, no place in the dreſs of children. Tape ſhould be uſed inſtead of pins; the linens next the child ſhould be often renewed, and every neceſſary precaution taken to prevent wet and dampneſs.

3. *The evacuation of the meconium.*—The excrementitious matter contained in the inteſtines of new-born infants, is called *meconium*, ſo ſtiled by the antients, from its ſimilitude to opium.

This was formerly ſuppoſed to be of ſo malignant and poiſonous a quality, that, if not immediately evacuated, its retention would occaſion cholic, vomiting, fits, and the moſt fatal conſequences. Hence the practice of giving new-born infants purging medicines as ſoon as born, a practice which is ſcarcely yet exploded. In general, however, it may be obſerved, that even the retention of this ſubſtance beyond the uſual time, will pro-

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duce leſs inconvenience than what is occaſioned from the acrimony of thoſe remedies the child is uſually conſtrained to ſwallow. Nothing, with that view, is ſo proper as to apply the child early to the breaſt. If any thing elſe ſeems neceſſary, which is more requiſite when the mother does not give ſuck, it ſhould be of a mild gentle nature, as magneſia, manna diſſolved in warm water, and given to the quantity of a tea-ſpoonful, from time to time, till it operates; or, what ſometimes anſwers the purpoſe ſufficiently well, the ſimple ſyrup of ſugar and water.

When the child ſhews an averſion to the breaſt, and ſymptoms occur indicating nauſeating ſickneſs, or inclination to vomit, it may be encouraged, by complying with the vulgar practice of giving a tea-ſpoonful or two of a ſolution of ſalt and water.

4. *Nutrition.*—Milk is the natural food of children in early infancy; and, in general, the mother's milk, when her conſtitution is ſound and healthy, is preferable to that of

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a ſtranger. The important advantages derived from nurſing, both to the mother and child, are ſo univerſally known, that it would be needleſs, in this place, to give a detail of them, eſpecially ſince that ſubject is ſo fully treated by the late Dr Gregory, in his elegant Comparative View, and by Mr Nielſon in his Eſſay on the Government of Children. To them we refer; for they contain many important advices, highly intereſting to mankind in general, and to parents in particular.

Women are to be conſidered but as half mothers who wantonly abandon their children as ſoon as born, and are ſtrangers to that ſecret endearing pleaſure which thoſe enjoy who ſuckle their children.

It is difficult to bring a child to ſtated times of ſucking, as many recommend. And, in fact, it is obſerved, that thoſe children are moſt healthy and thriving who are leaſt reſtricted, and allowed to take the breaſt at pleaſure. The mother ought, however, carefully to avoid the oppoſite extreme

extreme of becoming a ſlave to the child, as many unguardedly, or from an exceſs of affectionate tenderneſs, do. The child ſhould never be allowed to fall aſleep at the breaſt, or accuſtomed conſtantly to overcharge the ſtomach till the ſuperfluity be diſcharged by vomiting.

While a mother gives ſuck, fatigue, indolence, and inactivity, irregularities of every kind, abſtinence, and over-feeding, ſhould equally be guarded againſt.

Nurſes ſhould never eat or drink at irregular times, or in a quantity which the appetite does not demand. The diet need not be reſtricted to any particular food; but, in general, what is very high ſeaſoned, or rich, which produces wind, or is not eaſily digeſted, ſhould be avoided. Vegetables furniſh a ſweet and plentiful chyle, and ſhould have a large ſhare in the diet of nurſes. In other reſpects, the uſual manner of life ſhould be nearly obſerved. The regimen and management moſt conducive

to

to health will afford the ſweeteſt and moſt plentiful milk.

Although nature ſeldom demands any other nutrition in early infancy, beſides that of the mother's milk; yet, with a view of introducing a change of diet by degrees, the practice of beginning the child, when about ſix weeks old, with a little pap or panada, appears rational; for, when it is neglected till the time of weaning approaches, the habit is with difficulty eſtabliſhed, and there is great hazard that the child may ſuffer from the ſudden change of regimen.

At firſt, one meal is ſufficient; in a few weeks after, two will be neceſſary; and, before the term of weaning, food ſhould be given three times a day.

In general, a child ſhould be kept on the breaſt from nine to twelve months. Different countries adopt different practices with regard to the time and manner of weaning children. But it is influenced by ſo many circumſtances, that no preciſe rules can be given. The health of the child and

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of the mother, the period and manner of teething, the ſeaſon of the year, &c. muſt be attended to. Too early weaning, and too late, ſhould be equally guarded againſt. The cutting of the teeth is a critical period in the life of a child, and the effects ſhould be carefully obſerved. Children ought either to be weaned, before the period of teething commences, or not till the danger from teething be over.

It has been a queſtion with many, Whether it is ſafeſt to deprive the child of the breaſt at once, or by degrees? The latter is unqueſtionably preferable, when it can be done; by this means the hazard from a ſudden change of the child's diet is prevented, and alſo the inconveniences that often enſue from a ſudden repulſion of the mother's milk. But this method can ſeldom, for obvious reaſons, be practiſed when the child is ſuckled by a hireling.

There can be no harm in giving the child a little weak white-wine whey, diluted brandy punch, or even a tea-ſpoonful or

two

two of ſyrup of poppy, for a few nights after weaning, to prevent reſtleſneſs and fits of crying, till the breaſt be forgotten. Great care ſhould, however, be taken that the practice be not continued longer than neceſſary; for it is not only getting into a bad habit, but may be attended with diſagreeable conſequences.

Leſt, at firſt, any inconveniency ſhould reſult from the change of regimen, the belly, for ſome time after weaning, ſhould be kept moderately open with rhubarb, or rhubarb and magneſia.

Nothing can be more ridiculous than an opinion ſome have entertained, that milk of other animals is preferable to that of the child's mother, or that an infant can be reared by any other food better than by that provided by Nature. When, however, it is inconvenient or impracticable for the mother to ſuckle her own child, a milk-nurſe, properly qualified, muſt be adopted.

A thouſand qualities might be mentioned, which an adopted nurſe ought to poſſeſs; but appearances are ſo fallacious, that

it is exceedingly difficult to make a proper choice, and, therefore, hazardous to recommend. A nurſe may have every favourable appearance, and yet turn out a bad woman.

Good health, a good conſtitution, a breaſt well ſupplied with milk, the breaſts equal, and nipples prominent, are the beſt marks of a good nurſe. Her character ſhould be unexceptionable, her diſpoſition chearful. She ſhould alſo be of a proper age, and her body ſhould be carefully examined, to obſerve that there are no marks of ſcorbutic or ſcrophulous diſeaſe, or of any cutaneous eruption.

The milk ſhould not be too groſs or thick, or in any way diſagreeable to the taſte, in which it nearly reſembles milk and water a little ſweetened. When put in a glaſs, it ſhould ſtain it of a bluiſh colour. But every appearance of the woman and milk is precarious; and we can only judge of her upon trial. Hence we ought to be cautious of recommending any for the purpoſe

poſe of nurſes, unleſs thoſe who have already appeared with advantage in that character.

The *regimen* of nurſes is of great conſequence, though little attended to. They ſhould be confined, as nearly as poſſible, to their uſual diet and manner of life. One great motive that induces poor women to ſubmit to the drudgery of becoming nurſes for others, is with a view of living better. But women, ſuddenly tranſported from miſery and wretchedneſs to high life, that is, from poverty and activity, to luxurious living and indolence, are very improper for the office of nurſing. It ought, therefore, to be a rule to confine them, as near as poſſible, to their uſual diet and manner of life, or to introduce a change very gradually.

It is uncommon, and unnatural, for a woman to menſtruate while giving ſuck. It may, however, happen once, and not in future; and, in ſome, the courſes are regular, without any detriment to the child.

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The child, in ſuch caſes, ſuffers a ſlight indiſpoſition for a day or ſo before the menſtrual flux of the nurſe appears, is griped, or affected with cholic; but afterwards no inconvenience ſeems to follow. It is only when that appearance occurs from the change of diet, and manner of life, in the nurſe; from the ſtaleneſs of the milk, from nervous weakneſs, or in conſequence of ſome indiſpoſition, that a change becomes neceſſary; for, in all theſe circumſtances, the milk is both ſcanty and poor.

Laſtly, *Air and Exerciſe.*—A free pure air, and exerciſe ſuited to the tender age and active ſpirits of infancy, are of the utmoſt conſequence for the preſervation of health, and prevention of diſeaſe.

Rocking in craddles is a mode of exerciſe of very antient date, but ſhould be uſed with caution and prudence. In general, it may be entirely omitted: It is at leaſt beginning a bad habit, and ſeems moſt allowable in great towns, or in bad ſeaſons, when there is little opportunity of carrying the child

child abroad in the open air. Children, in early infancy, paſs the greateſt part of their time in a torpid ſtate. During this tender period, much toſſing in a craddle, or any violent agitation, would prove hurtful; hence exerciſe ſhould be well timed, gentle, and eaſy, and never carried ſo far as to heat the body, or endanger ſickneſs and vomiting.

Children ſhould be as much as poſſible in the open air, when awake. The nurſery ſhould be large, open, and airy; and every precaution ſhould be uſed to prevent the child from being over-heated in the night; for much ſweating is not only of itſelf weakening, but diſpoſes to the hazard of readily taking cold, from whence cough with wheezing, fever, croup, thruſh, and the moſt fatal conſequences, frequently enſue.

It would conduce much to the health of children and prevention of diſeaſe, if, at leaſt, immediately after weaning, little beds were provided for them to ſleep by themſelves.

themſelves. The conſtruction and make of the bed ought to be commodiouſly ſuited to the circumſtances of the child, that there might be no hazard of its ſuffering from the bed-clothes ſhifting to a ſide, being toſſed over, or from any other accident.

Having thus finiſhed the few hints we propoſed to ſuggeſt by way of management, where no extraordinary accident occurs, we proceed,

II.

To give a ſhort detail of the diſorders incident to new-born children, as far as it is conſiſtent with our preſent views.

This ſubject naturally divides itſelf into two parts.

1, Accidents occurring at birth or ſoon after.

2. Actual diſeaſes.

1. *Ac-*

1. *Accidents.*—Theſe include original malconformations, or accidental injuries from birth.

Nature is not always perfect in her operations; for children are ſometimes brought into the world with deficient, or ſupernumerary parts, parts miſplaced, natural paſſages cloſed, and with various ſpecies of marks, mutilations, and monſtrous appearances. Theſe it would be entirely foreign to our purpoſe to enumerate particularly; they are the objects only of the ſurgeon's attention, and ſometimes admit of no relief from his art; but, ſince many of them can readily be removed or redreſſed, the midwife ſhould carefully inſpect the infant's body, and give early notice as ſoon as any uncommon appearance or diſfiguration can be obſerved. Some of theſe are too conſpicuous to eſcape the notice of a diſcerning eye; but others are ſo obſcure that, unleſs from a very minute ſcrutiny, they are only diſcovered by their effects. For example, The *rectum* or end of the gut

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at the fundament is ſometimes cloſed up by a thin membrane, which prevents the paſſage of the natural evacuation; a ſimilar obſtacle prevents that of the urine in the female, or the paſſage may be impervious in the male. It is the buſineſs of the midwife, therefore, to examine every part of the infant's body after it is waſhed, and to inquire, at the next viſit, whether the child has purged and paſſed water freely.

Sometimes the *urethra* or paſſage from the bladder is choaked up with a kind of *mucus* or glary ſlime, which prevents the urine from flowing. This may, in moſt caſes, be readily removed by bathing with warm milk and water, rubbing warm oil on the child's belly, or, if that method fails, by paſſing the end of a ſmall probe within the paſſage; but, unleſs where it proceeds from ſuch ſlight cauſes as now mentioned, the ſkill of the midwife, and often even of the ſurgeon, will be inſufficient to obtain a cure.

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Sometimes, though rarely, infants are prevented from ſucking by a thin membrane under the tongue, which extends forward towards its tip, and prevents its motion, and conſequently the child from ſucking; this is called *tongue-tying*, a defect which can readily be removed by raiſing up the tongue with the fingers, and gently ſnipping the membrane with a pair of ſciſſars. This operation is, however, much leſs neceſſary than has been generally imagined. Perhaps of 500 children born, ſcarcely more than two or three require it. If the child ſucks the finger when put into the mouth, or is able to put the tip of the tongue without the lips, there is no diſorder of this kind. Many circumſtances may prove an impediment to the child's ſucking, as weakneſs of the jaw, thickneſs or ſwelling of the glands under the tongue; in the mother, the breaſts too full, bad nipples, &c. all which ought to be attended to.

Infants are ſometimes brought into the world with the tongue actually inverted;

or the ſame accident may happen from ſuction; convulſions immediately enſue, and ſoon after ſuffocation.

The diſeaſe is diſcovered by putting a finger into the child's mouth; and the fatal event can only be prevented by tickling the throat to provoke vomiting.

2. Children are expoſed to various injuries from birth.

In lingering, or laborious caſes, they are liable to ſwelling and alteration of ſhape of the head; in face caſes, to inflammation of the eyes, ſwelling of the noſe, lips, mouth, &c.; in preternatural births, to ſwelling and inflammation of the genital parts, fractures, and diſlocations of the joints.

1. The external ſwellings in the firſt caſe yield to time, and rubbing with warm ſpirits; but, when they continue above a few days, require a ſurgeon's aſſiſtance. When the brain is injured, convulſions, and many other diſorders, enſue. Convulſions in the earlieſt period of life are often removed by ſuffering the navel-ſtring to bleed

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a little; ſometimes by waſhing out the ſtomach, when that organ ſeems to be diſordered; but, if they yield not to theſe ſimple means, a phyſician ſhould be conſulted.

2. When the face preſents, the child is often brought into the world with the eyes inflamed, the noſe flattened, the lips ſwelled, the features diſtorted, and the colour of the countenance livid. Theſe appearances, though frightful and alarming, generally go off in a few days, when no violence has been done by officious hands; but the eyes of children, in ſuch poſitions, are often put out by the fingering of unſkillful practitioners.

3. In breech-caſes, the genitals of the child are expoſed to the hazard of tumefaction and inflammation, the danger of which is always increaſed in proportion to the freedom uſed in touching. Thoſe occaſioned merely from the manner of preſentation, are ſeldom of hazardous conſequence, and commonly yield to the ſimple treatment of bathing now and then with warm

warm water, more rarely poultices of bread and milk, or the application of a linen compreſs wet with a dilute ſolution of ſugar of lead in roſe water may be neceſſary. But, when the preſenting parts are fretted, or bruiſed by frequent touching, or by the efforts uſed to puſh them out of the way in order to turn the child, they frequently terminate in gangrene, and the event is often fatal.

Fractures, or diſlocations of the limbs of the *foetus*, ſometimes happen in preternatural labours. Such accidents are, generally, the effect of the raſhneſs, impatience, or ignorance of the practitioner, occaſioned by pulling down the legs or arms, in improper directions, or by attempting, in a fit of paſſion, as it were, to diſengage or bring them down with a jerk. Although the method of treatment is eaſy, ſome art is neceſſary to accompliſh a cure, eſpecially if the legs be fractured; and, ſince incurable lameneſs, or diſtortion, may be the conſequence, female practitioners ought to avoid

void incurring reflections, and prudently have recourſe to the ſurgeon's aſſiſtance.

Theſe are the principal accidents which occur at birth; but other *external diſorders* from time to time ſoon after ſupervene, as ulceration, or protruſion of the navel, ruptures, ſwelling of the breaſts, ſore eyes, runnings behind the ears, excoriation of the neck, arm-pits, groins, &c.

Ulceration, or protruſion of the navel.—That portion of the chord which belongs to the child being paſſed through a hole made in a ſoft linen compreſs, is to be laid upwards on the belly; the two ends of the compreſs are then to be folded ſmoothly over it, and the whole retained by a flannel roller, or belly-band, which ſhould be applied moderately firm, but by no means tight. About the fourth, fifth, or ſixth day, according to the ſeaſon and other circumſtances, the chord ſhrivels and drops off. Much being left is inconvenient, as the putrid maſs may communicate to the belly, and induce inflammation and mortification,

fication, of which I have known ſeveral inſtances. Every time the child is dreſſed, the navel ſhould be carefully examined, and, when ſeparated, it is common to apply a bit of ſinged rag, with compreſs and belly-band to be continued over all for a few weeks.

Sometimes, whatever precaution be uſed to prevent it, a tenderneſs and rawneſs round the edges, or degree of ulceration, are left behind, and prove exceedingly difficult of cure. A variety of dreſſing, in different circumſtances, may be neceſſary. When the edge appears open and much inflamed, a juicy raiſin, ſplit, and freed of the ſtones, applied over the part, makes a very proper dreſſing. If raw and excoriated, it may be waſhed with any gently aſtringent lotion, as alum water, or a dilute ſolution of ſugar of lead, and afterwards dreſſed with cerate.

Ruptures—ſometimes happen at the navel; but a ſtarting of the part, from looſeneſs of the ſkin, may be miſtaken for rupture; therefore

therefore preſſure on the part ſhould be made with caution.

Ruptures in the groin, and of the ſcrotum of boys, are no uncommon appearances; but they are ſeldom attended with danger. Little, therefore, is to be done in the way of treatment, unleſs keeping the belly gently open, and directing the part to be prudently ſupported with the hand while the child cries. Bandages ſeldom do much good, and unleſs conſtructed with judgment, and ſkillfully employed, are always hazardous.

Swelling of the breaſts.—New-born infants are ſubject to painful ſwellings of the breaſts, from an accumulation of milky fluid. The uneaſy tenſion ſeldom continues above a few days, and bathing with warm milk and water, or rubbing warm olive oil gently on the part, morning and evening, will, in moſt caſes, ſoon be ſufficient to remove it. Poultices of bread and milk are rarely neceſſary, except when the ſwelling and inflammation are conſiderable. A milky fluid often

often ſpontaneouſly runs out from the nipples; but the unnatural, though common method of forcibly ſqueezing the delicate breaſts of a new-born babe, by the rough hand of the nurſe or midwife, ought, in no inſtance, to be practiſed. Inflammation, ſuppuration, abſceſs, and their conſequences, often enſue; and beſides the hazard of diſagreeable marks in the boſom of girls, the woman, by that means, may be prevented, in future, from ever being able to give ſuck.

Sore eyes.—Sore eyes in young children are often occaſioned from expoſure to a glare of light, or from toaſting the child over the fire. This complaint may alſo ariſe from cold. Whatever be the cauſe, the diſeaſe is with difficulty removed. But the ſwelling and inflammation, however apparently alarming, unleſs from ſome glaring miſmanagement, ſeldom terminate in loſs of ſight. Bleeding, bliſtering, and phyſic, in few inſtances, do much good; and, in general, there is nothing better than keeping

keeping them clean, by frequent bathing with a bit of ſoft ſponge, and warm milk and water, to prevent gumming. Little light ſhould be admitted into the room; but covering the eyes is rather hurtful.

Runnings behind the ears.—Theſe are frequently occaſioned from the careleſſneſs of the nurſe neglecting to keep the parts clean, and to dry them well after waſhing. Unleſs there is tendency to eruptions or breakings out in other parts, they ought never to be encouraged, whatever has been advanced to the contrary; for, if habit be once eſtabliſhed, it is dangerous to dry them up, till ſome other drain or out-let be ſubſtituted. Waſhing with dilute ſolution of ſugar of lead, and, if neceſſary, afterwards, dreſſing with cerate, and keeping the belly open with ſmall doſes of rhubarb and magneſia, are the chief remedies.

Excoriations of the neck, arm-pits, groin, &c. ariſe from the ſame cauſe, and require a ſimilar treatment. Duſting with finely levigated calamine, or tutty ſtone, or with

white lead, when the child is dreſſed, will, when ſlight, be ſufficient to remove them. But the latter of theſe muſt be uſed with caution, as all preparations of lead, if long continued, are hazardous, and may, by being abſorbed, induce gripes, cholic, and even fits.

2. Beſides original imperfections, and accidental or other injuries from birth, or ſoon after, diſorders from internal cauſes frequently ariſe, the knowledge and treatment of which is the immediate province of the phyſician.

The cauſes of the diſeaſes of children are many, and their nature frequently difficult of inveſtigation, even to thoſe intimately acquainted with the animal oeconomy; hence, without a general knowledge of the practice of phyſic, no rational method of treatment can be attempted.

Children, ſoon after birth, are affected with red or yellow gum; they are liable to ſickneſs, vomiting, and cholic, and thruſh; and,

and, at a more advanced period, to the conſequences of teething.

The red gum—is an eruption of ſmall red pimples, like a raſh, which, in many children, appears all over the body ſoon after birth; it frequently diſappears ſuddenly, without any inconvenience to the child, and comes and goes, while on the breaſt. It is diſtinguiſhed from the meaſles by the abſence of meaſly ſymptoms, and time of attack.

Little management is neceſſary, further than to attend to the ſtate of the belly, and take care that the room or clothing of the child be not too warm.

The yellow gum is a diſorder of a very different nature from the former. It depends on the increaſed ſecretion of bile from the change in the circulation through the liver. The bile not finding a ready paſſage from the gall bladder into the inteſtinal canal, ſtagnates, and is abſorbed into the circulation; hence, in proportion to the quantity carried into the ſyſtem, the yellow colour

lour will be more or leſs deep. It is a real jaundice, therefore, and frequently fatal. It requires a ſimilar treatment as in adults, with gentle vomits and laxatives. In young children, magneſia with rhubarb may be uſed; Caſtile ſoap may be mixed in the nurſe's milk, or the milk may be changed entirely.

A ſlight appearance of yellow colour is only from ſome fluids being effuſed under the ſkin, and requires no particular treatment.

Sickneſs, vomiting, gripes, and cholic—are frequent complaints in early infancy; and, from their ſymptoms, are more readily diſcovered than many others. They evidently depend on the ſtate of the ſtomach, whatever remote cauſe may give riſe to them.

Milk, though the natural food of children, contains much air. There is alſo air ſwallowed in ſucking, which frequently produces the moſt painful ſymptoms: Theſe are, however, of no long duration, and are readily removed by gently ſhaking and agitating

gitating the child, by rubbing the belly with warm flannel, by giving a few teaſpoonfuls of brandy punch, by ſugar of aniſe, injected, or taken by the mouth, or by glyſters ſuited to the nature of the complaint.

If theſe remedies fail, there is reaſon to ſuſpect a foul, or habitually weak ſtomach.

We judge of children's complaints from the ſymptoms of quick or oppreſſed breathing, from the violence and durations of fits of crying, from the appearance of the eye and countenance, much more than from the frequency of the pulſe. Cholic ſhows itſelf by the ſuddenneſs of its attack, by the ſtate of the belly, frequently by exciting ſickneſs and vomiting, and by the well known ſymptoms in children, of pulling up the feet and legs towards the belly.

A variety of treatment in different circumſtances will be neceſſary.

Moſt of the diſorders of children, eſpecially where the ſtomach and bowels are affected, have been ſuppoſed to originate from

from a prevailing acid in the ſtomach. When this exiſts to a conſiderable degree, its preſence will be perceived from the appearance of the ſtools and vomiting, as ſour ſmelling green ſtools, a ſour breath, and frequently throwing up curdled milk; gentle vomits, ſmall doſes of rhubarb, magneſia, or, if the belly is already ſufficiently lax, prepared crabs eyes or chalk, are the chief remedies. The nurſe's diet ſhould alſo be regulated, and ſhe ought to leſſen her proportion of vegetable, and increaſe that of the animal food. To give immediate relief when the child is much pained, the warm bath ought to be uſed, the water ſhould riſe above the navel, and the child ſhould be kept in it from ten minutes to a quarter of an hour. Opiates alſo, in theſe caſes, frequently afford immediate relief; two or three drops of laudanum is a ſufficient doſe for an infant from birth to three months; and, from the firſt quarter to ſix or ſeven months, ſix or ſeven drops may be ſafely given. Injections alſo are valuable

able remedies. If the purging be thin, ſharp, and acrimonious, ſcalding or excoriating wherever it touches, the glyſter ſhould conſiſt of rather leſs than a gill of thin ſtearch, or rice gruel, with two or three tea-ſpoonfuls of fine oil, and eight or ten drops of liquid laudanum, dropped from the mouth of a ſmall phial. If the ſtools be natural, ſimple warm milk and water with oil, as above, will be ſufficient; or if it be required of a purgative quality, a little brown ſugar may occaſionally be added.

Thruſh, vulgarly called *ſpruc*,—is a diſeaſe frequently attendant on early infancy, though incident alſo to a more advanced age. Its nature ſeems little underſtood, and its treatment ſo injudiciouſly conducted, that many children are deſtroyed by the officiouſneſs of unſkillful practitioners. We ſhall therefore give a ſhort hiſtory of the diſeaſe, and ſuggeſt a few hints to direct the treatment.

The thruſh appears in the form of white ſpots, as if little bits of coagulated milk

or curd adhered to the mouth, tongue, and throat. When minutely examined, each ſpot is obſerved to be a diſtinct ſore or ulcer. They begin in the mouth, gradually communicate to the lips, palate, throat, gullet, and are often continued through the ſtomach and whole track of the inteſtinal canal, till they ſometimes appear externally at the fundament.

When the diſeaſe is mild, the ſpots are few in number, and the child ſuffers very little interruption in ſucking. But, when more malignant, the ſpots are ſo cloſe and numerous, that they run into each other, forming one uniform tenaceous cruſt, covering the whole mouth, palate, and throat. Hence the child becomes utterly incapable of ſucking; and, as the ſame cruſts cover the internal ſurface of the ſtomach and inteſtines, little nouriſhment can be conveyed into the blood, ſo that the child is frequently ſtarved.

Before the ſpots begin to appear, the child is generally ſeized with a remarkable lowneſs

lowneſs and depreſſion, the pulſe is then almoſt imperceptible, the extremities are cold, the child ſcarcely ſeems to breathe, and is apparently at the point of death. As the ſpots become obſervable, the pulſe gradually riſes, feveriſh heat and quick pulſe ſucceed, with great reſtleſſneſs, and the mouth becomes ſo tender, that the child is incapable of graſping the nipple, or of ſwallowing the mildeſt food; and in making the attempt, the mouth often bleeds immoderately, or the child falls into fits.

The colour of the ſpots is at firſt a dull white, and, in the progreſs of the diſeaſe, becomes yellowiſh. The intermediate parts between the ſpots are generally of an inflamed red colour. If it inclines to a purple, or livid, the danger is conſiderable; and, if the ſpots change ſuddenly to a duſkiſh gangrenous appearance, it is, for the moſt part, a fatal ſymptom. It is dangerous when a violent vomiting or purging occurs, and more ſo when the child is unable to ſuck or ſwallow. Theſe little ulcers

which conſtitute the diſeaſe, only affect the external membrane which lines the mouth, tongue, throat, &c. hence will readily diſappear from rubbing with any acrid, or detergent ſubſtance; but ſuch treatment is exceedingly improper, and ought to be reprobated in the ſtrongeſt terms; for, in conſequence of it, another ſeries of deeper incruſtations may be ſoon expected, and theſe will be again ſucceeded by a third, and ſo ſucceſſively as often as impertinent interruptions are thrown in the way; and, as often as they recur, they become thicker, deeper, and more numerous. The diſeaſe is indeed always exaggerated by the gentleſt efforts to remove it, till a change of appearance in the ſpots happens; for it muſt go through a regular courſe, and will be protracted by every means of ſhortening it.

The cauſe of the thruſh has been much diſputed. Its immediate cauſe has been commonly aſcribed to a diſordered ſtate of the ſtomach and bowels, the more remote

cauſes

cauſes to cold, eſpecially moiſt cold, crude improper food, ſtale aceſcent milk, &c.

Treatment.—The vulgar imagine, that, to remove external appearances, is ſufficient to cure the diſeaſe; but they are egregiouſly miſtaken, as the fatal event too often ſhews.

In the firſt, or early ſtate of the diſeaſe, nothing by way of waſh or lotion ſhould be applied, unleſs ſuch mild cooling demulcents as may keep the mouth cool and moiſt, as mel. roſe, cream, or a ſoft mucilage of gum Arabic diſſolved in boiling water; with either of theſe the mother's or nurſe's nipples ſhould alſo be anointed before the child ſucks, to prevent the hazard of ſore nipples, which will probably happen, if that precaution ſhould be neglected.

When the colour begins to change, which may be termed the ſecond ſtage, mel. roſe, with a few drops of the acid ſpirit of vitriol, ſoft rob of elder, or decoction of the bark, with ſpirit of vitriol gently acidulated,

ted, may be had recourſe to. Many other applications and remedies are recommended, and highly extolled by their favourites, as borax mixed with honey, to the quantity of half a drachm, or thirty grains of the former ſuſpended in an ounce of the latter, or mixed with as much conſerve of roſes; a dilute ſolution of white vitriol, &c. But the decoction of bark, agreeably ſharpened with ſpirit of vitriol, ſeems to anſwer every intention, and to be more efficacious than any other application.

Small beer, port wine, or claret, will make a very proper waſh in ſlight caſes. But, whatever ſubſtance is uſed for the purpoſe, it ſhould be gently put by little and little into the child's mouth. It gradually ſpreads over the cruſts, and, by mixing with the ſaliva, or ſlaver, is ſwallowed into the ſtomach, and paſſes into the inteſtines. This is preferable to the unnatural and dangerous method of ſcraping, as it were, the ſpots from the mouth and palate, by a rag wrapped round

round the end of a ſpoon, wet with the acrid ſubſtances uſually employed.

To correct acidities in the firſt paſſages, and prevent the conſequences of the diſeaſe, abſorbents, as magneſia, or prepared crabs eyes, ſhould be given freely. Three or four ſtools a day ought at leaſt to be procured; more than that would be injurious; and, if they ſhould occur, they muſt be checked by opiates, as, by giving from two to five drops of laudanum, according to the child's age, twice a day. If there is frequent inclination to vomit, the efforts muſt be aſſiſted by giving a few grains of powder of ipecacuanha. If the child gives over ſucking, bliſters muſt be had recourſe to, and thin panada (bread-berry) ſtrained, ſhould be given for nouriſhment, by way of glyſter. If there is ſuſpicion that the milk is faulty, either from its groſſneſs, poverty, or deficiency, the nurſe ſhould be changed without delay.

Dentition or teething.—Though dentition can hardly be termed a ſtate of diſeaſe, yet

Nature

Nature in it ſtrangely deviates from her uſual courſe; for children ſuffer more pain, and are in greater hazard of their life during the breeding and cutting of the teeth, than at any other equal period. Previous to the ſymptoms of teething, a child is generally healthy and thriving, but ſoon after that period commences, the natural ſprightlineſs abates, or entirely ceaſes; he becomes addicted to frequent fits of crying, is reſtleſs in the night, and peeviſh and fretful, in ſpite of every amuſement, in the day.

The time of breeding and cutting the teeth is liable to conſiderable variation in different children. It ſeems connected with the vigour of conſtitution and progreſs of growth; for weakly children are, in general, later of cutting teeth than thoſe who are ſtronger and more thriving. The firſt of the milk teeth commonly make their appearance from the ſixth to the ninth month. The manner of cutting is alſo irregular; for the moſt part, they appear firſt in

in the lower jaw, and come out nearly by pairs; but all this is uncertain. Sixteen milk teeth are, however, generally completed between the eighteenth and twentieth month of a child's age, viz. four inciſors or cutters in each jaw, two eye teeth in each jaw; and ſome time after, two ſmall grinders in each jaw. Nearly towards the end of the ſecond year, the remaining four ſmall grinders ſhoot out ſucceſſively, ſo that a child two years old is commonly furniſhed with ten teeth in each jaw, called milk teeth, becauſe they muſt yield to, and be thruſt out by ten ſucceſſors, placed in either jaw immediately under, which appear in the ſixth or ſeventh year, when four great grinders alſo ſhoot out, one at either extremity of both jaws.

The third ſet are furniſhed from the tenth to the thirteenth or fourteenth year; when four more great grinders make their appearance; and after puberty, towards the twentieth year, the laſt four ſhort grinders, called

called the *wiſe*, or *wiſdom* teeth, appear, making in all ſixteen teeth in each jaw.

Each tooth is covered with a membranous ſubſtance, plentifully ſupplied with nerves, and this membrane muſt be actually torn before the tooth protrudes through the gums; a ſmall nervous twig alſo enters at the point of each root, and is thus conveyed to the tooth. The gums, too, are ſupplied with nerves; and, though they are leſs ſenſible than other parts, their ſenſibility is much increaſed when inflamed.

In conſequence of this ſtructure, the protruſion of the teeth muſt give much pain to an irritable frame; for the painful and dangerous ſymptoms of teething are chiefly to be aſcribed to the ſtretching and tearing of the ſenſible membrane in which the tooth is enveloped.

The firſt ſymptoms of teething are heat, itching, and pain; theſe readily produce a conſtant ſlavering, the child ſtarts in his ſleep, rubs his gums againſt every hard ſubſtance that comes in his way; bites the nipple;

ple; the eyes are ſore and gummy. If the ſlaver, inſtead of dribbling from the mouth, ſhould be ſwallowed in conſiderable quantity, it will occaſion ſickneſs, vomiting, looſeneſs, and all the ſymptoms of indigeſtion: When the inflammation is conſiderable and the child weak, fever, convulſions, and death frequently enſue; and every diſorder during that period is more dangerous.

Conſtant ſlavering, a gentle looſeneſs, and proper intervals between the cutting of the teeth, are favourable appearances. The later they appear, there is alſo, in general, leſs danger. It is obvious, too, that ſummer, for a variety of reaſons, is more favourable than ſpring, autumn, or winter.

Coſtiveneſs, with fever, ſtartings and reſtleſſneſs, exceſſive looſeneſs, with crude ill digeſted ſtools, loſs of appetite, and frequent vomiting, with waſting of the muſcular ſtrength, are the moſt unfavourable ſymptoms.

The management muſt be regulated entirely by the ſymptoms. Feveriſh indiſpo-

ſition muſt be obviated by an open belly, and occaſional bleedings. A ſeaſonable bleeding is generally attended with the happieſt effects, in moſt of the acute diſeaſes of children. The quantity muſt be proportioned to the conſtitution and age of the child. A ſingle leech will be ſufficient for the purpoſe, when the child is under three months old; two may be neceſſary from three to ſix or eight months. The foot or leg is the moſt proper place for the application of the leech; for, if it ſhould not bleed freely, warm water can be uſed to promote it; if it ſhould bleed too much, it can readily be reſtrained, by applying a linen compreſs over the part, and retaining it by bandage. Beſides the advantages now mentioned, there is leſs hazard of cold and fatigue by applying the leech to the foot or leg than to the back, ſide, or other parts commonly practiſed. General bleeding is beneficial for leſſening general fever; but, if the gum be ſwelled or inflamed, or, from the circumſtances of the caſe, there is reaſon

ſon to ſuſpect that ſtretching from a tooth is the immediate cauſe of the ſymptoms, the protruſion of the tooth ought to be forwarded by cutting or ſcarifying the gum. The bleeding from the part often produces a good effect, and, if judiciouſly practiſed, and the tooth follows, by that means painful ſymptoms are immediately removed, and the child is reſcued from threatening death. The lancet in the hands of a ſkillful ſurgeon is unqueſtionably preferable to tearing the gum with the nails, or bruiſing it with a thimble, according to the frequent, but cruel and hazardous practice of the vulgar.

To remove ſickneſs and vomiting, gentle vomits of ipecacuanha muſt be uſed, and ſmall doſes of fine rhubarb, with magneſia, ſhould be given, to evacuate acrid ſlime, and to reſtore the tone and digeſtive faculty of the ſtomach and bowels. If the looſeneſs be exceſſive and the ſtools crude, the rhubarb ſhould be toaſted, and prepared crabs eyes employed inſtead of magneſia.

When

When there is a tendency to feveriſh indiſpoſition, with a bound belly, little food, beſide the breaſt milk, ſhould be given; but if the child be much waſted with frequent fits of looſeneſs, a change of diet ſhould be gradually introduced. If the ſtools be crude and ſour ſmelling, the food ſhould be of a nutritious quality, ſufficient for correcting the acidity of the ſtomach and firſt paſſages, and for ſtrengthening the digeſtive faculties. With theſe views, it ſhould conſiſt chiefly of panada, rice-berry, chicken-water, or beef-tea, in which bread, or boiled rice may occaſionally be mixed, and jellies of calves feet or harts-horn. Theſe ſhould be given in ſmall quantities, and frequently, gradually leſſening the proportion of milk till the child be entirely weaned from the breaſt.

Any other ſymptoms occurring at this period muſt be treated according to their particular nature; ſudden fits, or breathleſſneſs, or croupy cough, ought to be relieved by immediate bleeding and bliſtering, by

by laxative glyſters, by the uſe of the warm bath, &c. But on theſe, and many other ſymptoms connected with dentition, it would be entirely foreign to the intention of this work to enlarge.

During dentition, the child ſhould be provided with ſomething which can be ſafely applied to his mouth to preſs his gums againſt, as often as he is urged to it. By that means uneaſy itching will be gratified, and a gentle ſlavering, which is always ſalutary, will be promoted. A bit of liquorice root, frequently renewed, as it becomes dry and hard, will anſwer the purpoſe ſufficiently well, and is to be preferred to coral, glaſs, and other hard ſubſtances, which not only endanger bruiſing the inflamed gum, but the thruſting out of thoſe teeth already formed.

QUALI-

QUALIFICATIONS OF MIDWIVES,

WITH

PRESCRIPTIONS FOR WOMEN AND CHILDREN.

BEFORE we conclude this work, we ſhall, as an example to young practitioners, more fully point out what qualifications a midwife ſhould poſſeſs.

She ſhould have bodily ſtrength, and a good conſtitution; for caſes will occur in which the former will be abſolutely neceſſary, and the daily fatigues of the profeſſion render the latter indiſpenſible; but, though firm and robuſt, her hand ſhould be as ſmall as is compatible with ſtrength, and her joints ſhould be ſtrong, firm, and flexible.

flexible. Her mind ſhould not be ſo weak as to be intimidated with poſſible dangers, nor ſo changeable as to be moved by ſmall accidents; but ſhe ſhould equally avoid a careleſs diſregard to alarming ſymptoms, and an obſtinate perſeverance in firſt opinions. She ſhould be virtuous and prudent, ſenſible, affable, and well bred; not idly loquacious, nor reſervedly ſilent. Her behaviour ſhould be eaſy and engaging; it ſhould inſpire confidence rather than terror, and excite affection rather than apprehenſion. She ſhould be well informed of every circumſtance relating to her profeſſion; and, though the want of ſcience and philoſophy may prevent her knowing the reaſon of ſome facts, ſhe ſhould be thoroughly acquainted with the facts themſelves. With theſe views, ſhe will be naturally diffident; but ſhe ſhould alſo acquire ſome confidence in her own powers, and carefully avoid betraying any appearance which may lead the *patient* to imagine that ſhe diſtruſts herſelf.

Among

Among her qualifications, I ſhould alſo mention a quick diſcernment, a readineſs of recollection and preſence of mind, which will prevent her being alarmed by vexatious accidents, or the impatience and petulance of the patient or her attendants. She ſhould be always cool, compoſed, and recollected; to the queſtions put by the anxious relations, ſhe ſhould give direct anſwers, and a ready opinion concerning the preſent appearances. To the patient ſhe ſhould always appear chearful and humane; ſhould avoid being particular; but, when obliged to be explicit, ſhe ſhould ſet before her every encouraging circumſtance.

When the labour appears to be tedious, ſhe will ſpare her own ſtrength, and that of the ſufferer: She will occaſionally ſleep, and lull the patient to reſt by her confidence and encouragement. She ſhould never appear *hurried*, but give the *patient* the idea that her *whole* time is dedicated to *her alone*.

She

She ſhould excell in every part of the nurſe's knowledge, that ſhe may be enabled to adapt contrivances to any emergencies that happen, and to inſtruct thoſe who know not how to perform particular ſervices. She ſhould carry a ſmall caſe conſtantly in her pocket, containing,

A box of pomatum,

A ſmall phial of liquid laudanum,

A glaſs of ſal. volatile drops,

Sciſſars and tape,

A box of opium pills, grain and half grains,

A box laxative pills,

A catheter, and

A glyſter-pipe and bag.

She ſhould know the compoſition and method of preparing thoſe preſcriptions which ſhe may, from time to time, have occaſion to adviſe; and ſhould alſo be well qualified for inſtructing the nurſe in the manner of preparing variety of foods and drinks adapted to particular circumſtances.

With theſe views, the following preſcriptions are given.

Forms of Medicine referred to in the preceding Treatiſe.

I.

For promoting the *menſes* in caſes of obſtruction.

1. *Infuſion of horſe-radiſh root.*

Take of horſe-raddiſh root freſh, half an ounce;

Dried external bark of bitter orange one fourth of an ounce;

Boiling water an Engliſh pint. Infuſe for four hours, ſtrain, and let a cupful be taken twice or thrice a day, for a week or ten days preceding the expected period. Or,

2. Take four ounces of red madder, (the dye ſo called); infuſe in an Engliſh gallon of clear ſtrong beer for three days; ſtrain, and let a beer glaſsful be taken twice or thrice a day, as above directed. Or,

3.

3. Let the ſame ſubſtance be taken in fine powder, a doſe three times a day for a week or ten days previous to the expected period of menſtruation. Fifteen grains will be a ſufficient doſe for the firſt two days; for the next, twenty grains; and thus increaſing to the number of 30 or even 40, if it does not occaſion ſickneſs or vomiting. Or,

4. With the ſame view,

Take tincture of black hellebore, a teaſpoonful twice a day in a light infuſion of balm or pennyroyal. Or,

5. Compound tincture of caſtor; or, elixir proprietatis, may be taken in the ſame way.

In caſes of debility and relaxation, ſteel is one of the moſt powerful remedies for removing obſtructions. It ſtrengthens the ſtomach and invigorates the whole ſyſtem. It may be taken in ſubſtance, 10 or 15 grains of the filings of iron for a doſe, or 10 or 15 drops of the tincture of ſteel, in a glaſs full of cold water, twice a day.

If

If these fail, the warm or cold bath, or electricity, according to the particular circumstances of the case, should be used.

II.

To obviate pain in sparing menstruation.

1. Half a grain of solid opium, or 15 drops of liquid laudanum, may be taken in the morning, and double the quantity when going to bed at night. Or,

2. If languid, troubled with nervous complaints or flatulency, double the quantity of sal volatile drops, or compound tincture of castor, may be added to the laudanum with advantage. The whole should be mixed up in the form of a draught diluted with cinnamon or simple water, and sweetened agreeably to the taste.

III.

To restrain flooding.

1. Elixir of vitriol may be given, fifteen drops

drops in a glaſs of cold water, and repeated three or four times a day. Or,

Tincture of roſes.

2. Take an Engliſh pint of infuſion of dried ſcarlet roſes; ſtrain, and add as much of the acid ſpirit of vitriol as may render it agreeably ſharp; let it be ſweetened with refined ſugar to the taſte, and a cupful be taken often. But,

If the patient be very hot and feveriſh, or if the habit be full, beſides bleeding, cool air, and a ſpare diet, the following will be preferable.

Nitrous mixture.

3. Take of nitre one dram; diſſolve it in pure ſpring water, half an Engliſh pint; add two table ſpoonsful of vinegar, a quarter of an ounce of ſugar, and let a table ſpoonful be taken as often as the ſtomach will bear it.

A full doſe of laudanum or opium ſhould be given at bed-time, and the belly ſhould be kept moderately open with cream of tar-

tar

tar and magnesia, lenitive electuary, or emollient glysters.

When the flooding is abated the Peruvian bark should be given as a strengthener and preventative. It may be taken in substance, a tea spoonful three or four times a day, or in the form of decoction.

Decoction of bark.

Take of fine bark in powder an ounce;

Water three English pints; boil to one;

Add of simple cinnamon water half a gill.

Strain it while warm. A cupful to be taken twice or thrice a day.

IV.

For diminishing the discharge of the *fluor albus*.

Internally.

1. *Strengthening electuary.*

Take of finest bark an ounce;

Japonic earth finely levigated,

Alum in fine powder, each $\frac{1}{4}$ ounce;

Grated nutmeg one dram;

Common syrup sufficient to make it into a soft

ſoft electuary; the doſe a large tea-ſpoonful three times a day. Or,

2. If pills be more agreeable,

Take of extract of Peruvian bark,

Gum Kino, each one dram;

Alum, half a dram; rub the kino and alum into a fine powder; then add,

Rhubarb, in powder, two ſcruples;

Common ſyrup, ſufficient to make it into a maſs of pills, to be formed of an ordinary ſize, of which four or five may be taken evening and morning. Or,

3. If the ſtomach be much diſordered, and an acid ſeems to prevail, the following method of giving bark will be preferable to any other.

Take fineſt bark powder, two ounces;

Lime-water two Engliſh quarts; let it be infuſed for ſeveral days, ſhaking it often, then ſtrained, and a cupful drank three times a day.

During the uſe of the above, the belly ſhould be kept open with rhubarb or cream of tartar.

Exter-

Externally.

Either of the following liquors may be uſed as a waſh, or injected into the *vagina*.

Tincture of roſes; a ſtrong infuſion of green-tea; the water of Hartfield Spa; water from a ſmith's forge. Or,

1. *Dilute ſolution of ſugar of lead.*

Take ſugar of lead, twenty grains;
Roſe-water, half an Engliſh pint;
Diſtilled vinegar, a table-ſpoonful.

When the lead is diſſolved, let the ſolution be filtered. It may be made occaſionally ſtronger, or more dilute.

2. *Alum water.*

Take of alum in powder one dram; diſſolve it in an Engliſh pint of boiling water; when cold let it be filtered.

To make it ſtronger or more aſtringent, the ſame quantity of white vitriol may alſo be added.

V.

V.

Moſt convenient form of exhibiting laxative medicines.

1. *Caſtor oil*, when genuine, is more effectual than any other remedy in obſtinate coſtiveneſs. Two tea-ſpoonfuls mixed with a little of any ſpirit, may be given every three or four hours, till it produces the deſired effect.

2. *Magneſia* is mild and inoffenſive, but uncertain and precarious in its operation as a laxative. It is chiefly to be truſted when there are evident marks of an acid in the ſtomach. To render it active, fruit, as orange, &c. ſhould be freely taken along with it. Two tea-ſpoonsful may be taken for a doſe, once, twice, a day, or oftener.

3. *Common or mild laxative pills.*

Take fineſt ſuccotrine aloes, in powder, one dram;

Caſtile ſoap, half a dram;

With common ſyrup make it into ordinary ſized pills, one or two of which for a doſe, may be taken at bed-time, occaſionally. Or,

4. *Very ſtrong laxative pills.*

Take aloes, as above, a dram;
Reſin of Jallap,
Soap, each half a dram;
Oil of aniſe, or of juniper, 12 drops;

Rub the aloes and reſin of Jallap into a fine powder; add the other ingredients, and make the whole into a maſs with ſyrup, to be formed into ordinary ſized pills, one of which at bed-time will, in moſt caſes, be ſufficient for a doſe; in the moſt obſtinate habits, two will very ſeldom fail. Or,

5. *Laxative electuary.*

Take lenitive electuary, an ounce;
Jallap, in fine powder, half a dram;
Cream of tartar, two drams;

Syrup ſufficient to make it of a proper conſiſtence. The doſe the ſize of a nutmeg in the morning, occaſionally. Or,

If

If it ſhould be required ſtronger, the double or triple quantity of Jallap may be added.

6. Elegant form of a *laxative electuary*, which may be ſafely and ſucceſsfully exhibited in the moſt delicate habits, without hazard of gripes or ſickneſs.

Take lenitive electuary,

Pulp of caſſia, each half an ounce;

Fineſt manna, an ounce;

Cream of tartar, in fine powder, 2 drams;

Jallap, in fine powder, half a dram;

Ginger or cinnamon, in powder, a ſcruple;

Syrup of roſes a ſufficient quantity to make it into a ſoft electuary. The doſe, at firſt, a tea-ſpoonful; to be gradually increaſed, or occaſionally repeated, till it produces a proper effect.

To make it ſtronger, the double quantity of jallap may be added.

VI.

VI.

Forms of internal remedies for variety of purpoſes.

1. *Chalk drink* for looſeneſs or heart-burn, when an acid prevails in the ſtomach.

Take an ounce of prepared chalk;

Gum Arabic, the ſame quantity, or more; boil from three Engliſh pints of water to two; add half a gill of ſimple cinnamon, or nutmeg-water, ſweeten to the taſte, and let a cupful be taken three or four times a day, ſhaking the bottle.

2. *Anodyne mixture*—to remove falſe pains, or promote thoſe of labour.

Take liquid laudanum, eighty drops;

Simple ſpring-water, half a pint;

Sweeten to the taſte with ſugar; and give two table ſpoonsful once in three, four, or five hours, while the genuine pains are ſlow and trifling, or till the ſpurious grinding pains abate. Or,

3. Elegant

3. Elegant *anodyne mixture*, when ſomewhat more cordial ſeems to be indicated.

Take of ſimple cinnamon water,
Compound nutmeg-water; each two table-ſpoonsful;
Spring-water, ten ſpoonsful;
Sal. volatile drops, two tea-ſpoonsful;
Liquid laudanum, eighty drops;
Common ſyrup, two or three ſpoonsful.
Mix. To be given as above.

This mixture is alſo one of the moſt effectual for removing or relieving after-pains. The doſe, two ſpoonsful at bed-time, and one, two, three, or four times a day, when the pains are violent. Or,

4. For after-pains, when the pulſe is quick, and the ſkin hot and dry.

Saline mixture.

Take lemon juice, freſh, one ounce and a half;
Salt of wormwood, one dram;
Mix in a tea-cup, ſtirring with a tea-ſpoon

ſpoon till the effervescence be over, then add,

Simple cinnamon water, two table-ſpoonsful;

Roſe-water, or common ſpring-water, eight table-ſpoonsful;

Fine ſugar, ſufficient to ſweeten it to the taſte. The doſe, two table-ſpoonsful, every two or three hours.

To a doſe of the above, 10 drops of laudanum may occaſionally be added, when the pains are violent, obſerving to deſiſt if the opiate ſhould occaſion ſickneſs or giddineſs of the head.

The ſimple ſaline mixture, without laudanum, is an admirable remedy for removing nauſeating ſickneſs, ſtopping bilious vomitings, or leſſening febrile indiſpoſition. In theſe caſes it ſhould be prepared in ſmall quantities, and given while fermenting.

It may be alſo given with great advantage in *weeds*, immediately after the cold fit.

VII.

VII.

Forms of glyſters.

1. *Common glyſter.*

Take of warm water, three gills;
Coarſe or raw ſugar, a table ſpoonful;
Fine olive oil, four ſpoonsful, or
Freſh butter, the ſize of a ſmall hen egg;
Mix, warm, ſtrain it, and give for a glyſter, always putting the bag to the cheek to judge of its warmth before it be adminiſtered.

2. *Strong, or purging injection.*

Add to the above about half a tableſpoonful, or more, of common ſalt. Or,

If that ſhould fail,

3. Let about half an ounce of ſenna-leaves be boiled in the water, then add the other materials, as above.

4. *Simple emollient injection.*

To three gills of warm water, milk and water, or chamomile tea, add four tableſpoonsful of fine oil.

5. *Car-*

5. *Carminative Glyſter.*

Let carvi, aniſe, or coriander ſeeds be bruiſed, and boiled in any of the preceding, to the quantity of a quarter of an ounce.

6. *Anodyne Injection.*

To four or ſix ounces of a mucilage made by diſſolving gum Arabic in boiling water, or of ſtearch, to the conſiſtence of liquid gelly, add fifty or ſixty drops of liquid laudanum.

If, with a view to remove violent pain, a much larger doſe of laudanum, as 100 drops, may, by way of glyſter, be given with ſafety and advantage.

In caſes of violent cholic with looſeneſs, or where an opiate is indicated, and the ſtomach rejects it when given internally, this method ſhould be had recourſe to.

7. *Injection for effectually removing after-pains, when complicated with grinding pains from flatulency in the inteſtines.*

Diſſolve a quarter of an ounce of aſſa foetida in three gills of warm water; add three

three or four table-ſpoonsful of fine oil; liquid laudanum, ſixty drops; or, if the pains be frequent and exceſſive, eighty.

It ſhould be repeated every day, or even twice a day, if neceſſary.

The belly muſt be kept open with laxative glyſters.

DIRECTIONS *for Preparing variety of* DRINK *and* FOOD *adapted to the ſituations and circumſtances of* Lying-in-women.

I. OF DRINK.

Barley Water.

Take of pear barley two ounces;
Water four Engliſh pints.

Waſh the barley with boiling water, which being poured off, add the above quantity of water boiling; boil ſlowly till one half, and then ſtrain it.

Groat gruel may be made in the ſame manner.

Water Gruel.

Take of oat-meal two large ſpoonsful;
Water, two Engliſh pints; mix and boil for ten or fifteen minutes, conſtantly ſtirring; then ſtrain, and add ſugar or ſalt ſufficient to the taſte.

Rice Gruel.

Take of ground rice two ounces;
Cinnamon, a quarter of an ounce;
Water, four Engliſh pints;
Boil for about half an hour; ſtrain, and ſweeten to the taſte.

Imperial Drink.

Take of cream of tartar, a dram;
Outer rind of freſh lemon, or orange peel, half a dram;
Fine ſugar, an ounce;
Boiling water, two Engliſh pints.
When it has ſtood in a ſtone or porcelain veſſel

veſſel about half an hour, ſtrain off the liquor.

Lemonade.

Take of the outer rind of freſh lemon-peel a dram;
Lemon juice, an ounce;
Double refined ſugar, two ounces;
Boiling water, an Engliſh pint and a half.

After it has ſtood half an hour in a ſtone or porcelain veſſel, let it be ſtrained.

Orangeat.

Take of the freſh outer rind of Seville orange, a dram;
Orange juice, two ounces;
Refined ſugar, nearly two ounces;
Boiling water, two Engliſh pints.

After it has ſtood as above, let the liquor be ſtrained off.

White-wine-whey.

Take of new milk, two Engliſh pints;
Water, one pint;

White-

White-wine, a gill. Put the milk and water into a well tinned ſauce-pan, and when it begins to boil add the wine. Separate the whey from the curd, and ſweeten it to the taſte with ſugar.

It may be clarified by boiling for a few minutes in the whey, a little of the white of an egg beat up. The whey muſt afterwards be ſtrained.

The Iriſh Poſſet.

Take an Engliſh pint of new churned milk; pour over it a quart of ſweet milk, boiling hot; cover it till it be completely poſſetted; then take off the top or curd, ſweeten the whey to the taſte, adding the juice of half a bitter orange, a little beat cinnamon, and a glaſs of white wine.

This is a pleaſant cooling drink, and gently opening.

It may alſo be made thus; it is then called *Two Milk Whey.*

Pour ſweet milk, boiling hot, over an equal quantity of new churned milk; cover it

it till it be poſſetted, and ſeparate the whey from the curd.

H. FOOD.

Brown Caudle.

Take of water-gruel, made a little thicker than uſual by boiling;

Good mild beer, each an Engliſh pint.

Boil about a quarter of an hour, conſtantly ſtirring; and, when ſtrained, add grated nutmeg and ſugar ſufficient to the taſte. A little wine may be occaſionally added, leſſening the proportion of the ale, and a ſufficient quantity of thin toaſted bread.

White Caudle.

Boil gruel as above, with three or four cloves and a little mace, conſtantly ſtirring; add freſh outer rind of lemon peel, and, when ſtrained, white-wine, grated nutmeg, and ſugar to the taſte. It may be eat with toaſted bread as above.

Boiled

Boiled Cuſtard, or very light Caudle with Egg.

Take the yolk of an egg and a little ſugar; beat them well up together; then add about half a ſpoonful of flour, and gradually mix with it two ſpoonsful of milk. Pour this gradually into a ſauce-pan among half an Engliſh pint of ſweet milk when it boils, conſtantly ſtirring it; let it boil for a minute; then add a glaſs of wine, and let it boil a minute longer; or it may be flavoured with cinnamon or nutmeg.

The chief art in making the caudle, is to prevent it from curdling.

Panada, or Bread-berry.

Take of bread, not too new baked, an ounce;

Water, an Engliſh pint.

Boil without ſtirring, till they mix, and the bread be ſoft and ſmooth; then add a little grated nutmeg and ſugar, and two ſpoonsful of wine or ſimple cinnamon water.

Sago.

Sago.

Take of ſago a large table ſpoonful;
Water, ſomewhat leſs than an Engliſh pint.

Boil gently, ſtirring it conſtantly till the mixture be ſmooth and thick; then add a little nutmeg, or beat cinnamon and ſugar, and two ſpoonsful of wine.

Salop.

Take of ſalop, finely powdered, a tea-ſpoonful;
Water, half a pint.

Mix the ſalop well in a cup of the water; add the reſt; put the mixture into a ſauce-pan; ſet it over a clear fire, and keep it continually ſtirring, till it acquires the conſiſtence of a jelly. Add a little nutmeg, a ſpoonful of wine, and ſugar to the taſte.

Beef Tea.

Take of lean beef, carefully ſeparated from the fat, four ounces;
Water,

Water, an Engliſh pint and a half;
Salt, ſufficient to ſeaſon it.

Skim it for five minutes after it begins to boil; then add a little mace; boil for ten minutes more; then pour it into a baſin for uſe. If cold, any fatty parts can be ſkimmed from the ſurface.

Mutton Broth.

Take of the loin of mutton, a pound;
Water, three pints.

Put into a ſauce-pan with a little ſalt; carefully take off the ſkim with a ſpoon, as it riſes; then add a little onion and mace, if there be no objection to them. Boil till the meat be tender; pour the ſoup into a baſin, and, when cold, carefully ſkim off the fat. The broth may then be warmed and given when neceſſary.

Boiled rice may be added to this, or to beef tea, occaſionally.

Chicken Broth.

Take half a chicken ſtripped of the ſkin and fat;
Water,

Water, two pints;

Salt, as much as is neceſſary to ſeaſon it.

Boil ſlowly for about three-fourths of an hour, taking the ſkim off as it riſes; then add a little mace, and a cruſt of bread; boil a little longer, and pour out the broth for uſe. Or,

Take the fleſhy part of the legs of a chicken, without ſkin, fat, or bones; put it into a ſmall ſauce-pan, with a pint and a half of water, and a little ſalt; boil, taking off the ſcum as it riſes; add a little mace and parſley, and a cruſt of bread; when they have boiled about half an hour, pour out the broth from the parſley for uſe.

Very light Soup, when Animal Food is forbid.

Take a handful of green peaſe when in ſeaſon, or otherwiſe of dried peaſe; put them into three Engliſh pints of water; let them boil till they burſt, together with a little

thyme, winter ſavoy, and pot marjoram, alſo two or three onions; when they are all ſufficiently boiled, put it through a ſearch, beating it with a ſpoon till the conſiſtence be as thick as is wanted; then place it on the fire, putting into it a ſliced lettuce, ſome turneps cut ſmall, and a few pieces of the white of celery. When theſe are enough; ſeaſon it with ſalt; and, if there be no objection, a little pepper will add to the flavour.

Light Soup with Rice.

Take two ounces of rice; put it into four Engliſh pints of water; let it boil till the rice is the conſiſtence of jelly; then add boiling water till it be diluted to the conſiſtence wanted; add two or three onions, a little mace, a whole pepper or two, with a little thyme; let it boil till it be ſufficiently ſeaſoned; then pour it through a ſearch, to keep for uſe.

Salt is always taken for granted.

Soup

Soup Meagre.

Take carrots, turneps, celery, clean waſhed and picked, and cut in pieces, lettuce, a handful of green peaſe, two or three potatoes, and what elſe of ſeaſonable herbs, may be thought proper, together with three or four onions, peeled and cut into quarters; put all theſe into a cloſe gobblet, on the ſide of a ſlow fire, with three Engliſh quarts of water; let it ſtove ſlowly for three or four hours, then diſh it for uſe.

Pepper may be occaſionally added, or not, according to circumſtances.

The ſole cruſt of a loaf put into it when half boiled, will add to its ſtrength and conſiſtence.

Bread Soup.

Take the bottom cruſt of a penny-loaf, cut off thin; put it into a quart of ſpring-water, with half a dram of mace and a little cinnamon; keep it ſtirring on a ſlow fire till the cruſt is almoſt diſſolved; then pour it off, and add to it a ſpoonful or two

of

of port wine, and ſugar ſufficient to ſweeten it to the taſte.

It is nouriſhing, and often given when the ſtomach loaths every thing elſe; but is rather of a binding quality.

Another.

Take the upper cruſt of a roll dry, and not new baked; cut it into pieces, and put it into a ſauce-pan with a pint of water, and butter as much as the bulk of a nutmeg; boil, ſtirring and beating it now and then, till the bread is mixed; then ſeaſon the ſoup with a little ſalt, and pour it into a baſin for uſe.

A little port or white wine may occaſionally be added.

Bread pudding.

Take of crum of bread, about half a pound; new milk, ſomewhat leſs than a pint; pour the milk boiling hot upon the bread; let it ſtand covered up about an hour, then add the yolks of two eggs, well beaten,

en, a little grated nutmeg, a ſpoonful of roſe water, a little ſalt and ſugar; beat and mix the whole well together with a ſpoon. Tie it then cloſe up in a clean linen cloth, and put it in boiling water; boil near an hour, then take it out, lay upon a plate, pour over it ſome melted butter, mixed with a little white-wine, and ſprinkle ſome ſugar over all.

Bread Pudding, without Eggs.

Take a French roll; pour upon it half a pint of boiling milk; cover it cloſe, and let it ſtand till the milk be ſoaked up; tie it then up tightly in a cloth, and boil it a quarter of an hour; pour it out, and let it alſo be eat with melted butter, wine, and ſugar, as above.

Batter Pudding.

Take of flower three ſpoonsful; milk, a pint; a little ſalt, beaten ginger, and nutmeg; eggs the yolks of three, and white of one, may occaſionally be beaten together, and

and mixed with the above ingredients. Half an hour's boiling will be ſufficient.

It may be eat as the former, with melted butter, wine, and ſugar.

Pudding without Eggs.

Take the crumb of a penny-loaf; pour over it an Engliſh quart of ſweet milk, boiling hot; cover it up warm, and let it ſoak about half an hour; grate the outer part of carrot and bitter orange; mix ſugar and cinnamon; then beat all up with the bread, together with a glaſs of white-wine, and a ſpoonful of orange flower water, and either boil or bake it. If boiled, it muſt be put into a pan, and ſtirred with a ſpoon till thick, then put into a linen cloth, and boiled for half an hour. When ready, it muſt be placed in a baſin before taking it out of the cloth, and let ſtand for a few minutes. The cloth is then to be opened, the pudding turned over into a diſh, and eat with lemon, or white-wine and ſugar.

Light

Light Pudding, without either eggs or milk.

To half a pound good oat meal, put three Engliſh pints of cold ſpring water; ſtir it with a ſpoon till the white ſubſtance from the meal gives the water the appearance of pretty thick cream. Pour this from the grounds, and put it into a pan with a ſtick of cinnamon. Let it boil, conſtantly ſtirring, till it loſes the raw taſte of the oat meal, and becomes as thick as flummery; then add a glaſsful of white-wine, a ſpoonful of orange flower water, the rhind of a grated orange or lemon, with a little of the juice, and ſugar to the taſte; put it into a baking plate, and let it bake till brown on the top. Put grated ſugar over it, and ſerve it hot.

It will not turn over in a ſhape, never being ſufficiently firm for that, but is pleaſant, light, and laxative, free of the binding quality of flower.

Rice

Rice Pudding, without Eggs.

Take of rice, two ounces; boil it with a pint of milk, conſtantly ſtirring, leſt it ſhould burn; when a little thickened, take it off, let it ſtand till it be nearly cool; then mix in it two ounces of butter, a little grated nutmeg, and ſugar to the taſte. Pour it into a proper diſh, firſt rubbed over with butter, and bake it.

Hartſhorn Jelly.

Take ſhavings of hartſhorn, half a pound;
Water, three pints;
Fine ſugar, ſix ounces;
White-wine, a gill;
Orange or lemon juice, an ounce.

Boil the hartſhorn and water, ſlowly, in a well tinned veſſel, to one pint, then ſtrain out the liquor, add the other ingredients, and boil the whole over a gentle fire, to the conſiſtence of a ſoft jelly, to be afterwards filtered through a flannel bag. Or,

If neither wine nor acids be allowed,
Take hartſhorn ſhavings, half a pound;

Barley

Barley water, four pints;

Boil to one half, then ſtrain, ſweeten to the taſte, and filter.

A little ſimple cinnamon water may occaſionally be added.

Calves-feet Jelly.

Boil two calves feet from a gallon of water till a quart, then ſtrain, and, when cold, carefully ſkim off the fat. The jelly ſhould alſo be ſeparated from any ſettling at the bottom. Put it into a ſauce-pan, with a pint of white-wine, half a pound refined ſugar, the juice of four lemons, and the white of half a dozen eggs; beat up with a whiſk; mix all well together, ſet the ſauce-pan upon a clear fire, and ſtir the jelly till it boils.

When it has boiled a few minutes, pour it through a flannel bag till it runs clear; let it then run, while warm, into a china-baſon, with ſome lemon-peel in it, cut very thin. It may then be put into proper glaſſes.

Forms of Medicine for new-born Children.

I.

For purging an infant newly born.

1. Take an ounce of fineſt manna; diſſolve it in as much boiling water as will be ſufficient to make it the conſiſtence of ſyrup; ſtrain it, and let a tea-ſpoonful be given every hour or two till it operates. Or,

2. Mix two tea-ſpoonsful of *Magneſia* with a table-ſpoonful of ſimple cinnamon water, and as much common ſyrup *, and let it be given as above. Or,

In very obſtinate caſes,

3. Take of ſyrup of pale roſes, and ſyrup of the berries called buck-thorn, each a table-ſpoonful; ſimple cinnamon water, two tea-ſpoonsful. Mix; give a tea-ſpoonful every hour or two till it operates.

To

* Common ſyrup is made by diſſolving ſugar in boiling water to the conſiſtence of liquid jelly.

II.

To correct acid crudities in the ſtomach and inteſtines of infants, which is known by frequent green ſour ſmelling, or crude ſtools, with gripes or cholic pains.

Mix, in ſugar and water, five or ſeven grains of prepared crabs eyes or chalk, for a doſe, to be repeated twice or thrice a day; and, once in two or three days, give four or five grains of fine rhubarb.

Simple Tincture of Rhubarb for Children.

Take of fineſt rhubarb, in powder, thirty grains;

Salt of tartar, three grains;

Simple cinnamon water, half a gill;

Infuſe, by the ſide of the fire, covered for 6 or 8 hours; then ſtrain and ſweeten it to the taſte with fine ſugar. The doſe, a tea-ſpoonful to a child under four months, and two tea-ſpoonsful from that period till after the firſt year.

This

This tincture is alſo the moſt proper form of a ſtomachic purgative for children, after weaning. A doſe may be given every ſecond or third morning, till the above quantity be exhauſted.

In warm weather, two or three teaſpoonsful of brandy ſhould be added to prevent it from fermenting.

III.

Vomits for Children.

Two or three grains of *ipecacuanha*, very finely powdered, and mixed in a little common ſyrup, will be ſufficient for a new-born infant.

Five grains will generally operate from ſix to twelve months; and, from one year to five, ten grains will be ſufficient.

IV.

For Cholic in Children, attended with green Scour.

Take ſimple cinnamon water, peppermint

mint water, and common ſyrup, of each two table-ſpoonsful; liquid laudanum, fifteen drops. Mix; the doſe, a tea-ſpoonful every hour or two till the violent pain or gripes abate.

Small doſes of rhubarb ſhould alſo be occaſionally given; and crabs eyes, or prepared chalk, to correct the acidities.

V.

For cholic with dry gripes.

Purging Glyſter for young Children.

Take nearly a gill of cow's milk;

Two table-ſpoonsful of fine oil;

Two tea-ſpoonsful coarſe ſugar;

Mix for an injection.

It ſhould be given leſs warm than for an adult.

If the child be diſtreſſed with flatulency, a few drops of oil of aniſe ſeed, rubbed with ſugar, may be diſſolved in the liquid.

In

In ſudden fits of violent pain, incident to children, from whatever cauſe, injections have a good effect; and, if the child be not ſoon relieved, he ſhould be put into a bath of warm water, as high as the ſtomach, for about ten minutes. Its effect in removing ſpaſm, or leſſening pain, are well known. But, if the ſmall-pox be ſuſpected, the child ſhould be freely expoſed to the cold air.

V.

VI.

For looſeneſs in Children, particularly about the period of Teething.

Give ſmall doſes of rhubarb every other night, for a week. In the intermediate days, give the following mixture:

Take a quarter of an ounce of prepared chalk or crabs eyes,

Simple cinnamon water,

Common ſyrup, of each two tableſpoonsful; Mix, and give a child's ſpoonful three or four times a day, ſhaking the glaſs.

If

If the child be very reſtleſs, and the purging frequent in the night, give from three to five drops of laudanum, according to the child's age, in the Evening's doſe of the mixture.

If the looſeneſs be exceſſive, and does not ſoon abate, and the milk is ſtale, it ought to be changed.

The child's diet, beſides the milk, ſhould conſiſt of chicken broth, or beef-tea, with boiled rice, panada prepared of hard biſcuits; and hartſhorn jelly ſhould be freely given.

If the purging be exceſſive, along with frequent and ſevere ſtraining, the following injection ſhould be adminiſtered evening and morning:

Take half a gill of thin ſtearch;
Two or three tea-ſpoonsful of fine oil.
Five or ſeven drops of laudanum;
Mix; and give it moderately warm, ſoon after the fit of looſeneſs or ſtraining is over.

When

When nourishment cannot be given by the mouth, or is soon after rejected from the stomach, glysters of beef-tea, chicken water, or strained panada, should be thrown up three or four times a day; and a few guts of laudanum may occasionally be added, to prevent the glyster from passing too soon.

MVSEVM BRITAN NICVM

FINIS.